COLONY OF MAURITIUS

ANNUAL REPORT

OF THE MEDICAL AND HEALTH DEPARTMENT

1st JANUARY to 31st DECEMBER, 1932

Printed by R. W. Brooks, Government Printer, Port Louis, 1934.

COLONY OF MAURITIUS

ANNUAL REPORT

OF THE MEDICAL AND HEALTH DEPARTMENT

1st JANUARY to 31st DECEMBER, 1932

Printed by R. W. Brooks, Government Printer.—Port Louis, 1934.

29415

Index to Medical Annual Report 1932

HOSPITALS & DISPENSARIES are shown in the Map by Numbers as indicated below.

PORT LOUIS

- Civil Hospital ... 1
- Eastern Suburb (St François) ... 2
- Western Suburb (Bell Village) ... 3

PAMPLEMOUSSES

- Terre Rouge ... 4
- Pamplemousses (Village) ... 5
- Long Mountain ... 6

RIVIERE DU REMPART

- Poudre d'Or ... 7
- Rovin ... 8
- Grand Gaube ... 9
- Grand Bay ... 10

FLACQ

- Flacq Hospital ... 11
- Trou d'Eau Douce ... 12
- Rivière Sèche ... 13
- Sébastopol ... 14
- St. Julien ... 15
- Brisée Verdière ... 16

MOKA

- Moka Hospital ... 17
- Pailles ... 18
- St. Pierre ... 19
- Quartier Militaire ... 20

BLACK RIVER

- Petite Rivière ... 21
- Bambous ... 22
- Tamarin ... 23
- Grande Riviere Noire ... 24
- Case Noyale ... 25

PLAINES WILHEMS

- Curepipe ... 26
- Vacoas ... 27
- Victoria Hospital (Quatre Bornes) ... 28

GRAND PORT

- Rose Belle ... 29
- Plaine Magnien ... 30
- Mahébourg Hospital ... 31
- L'Escalier ... 32
- Bois des Amourettes ... 39
- St. Hubert ... 34

SAVANNE

- Souillac Hospital ... 35
- Riviere des Anguilles ... 36
- Chemin Grenier ... 37
- Baie du Cap ... 38

COLONY OF MAURITIUS

ANNUAL REPORT

on the Medical and Health Department,

1st January to 31st December, 1932

I.—Administration.

Important events in the Colony during the year prevented any considerable administrative development, though much time has been occupied in preparing financial and other adjustments in the Department so as to be able to institute improvements as soon as circumstances allow.

2. In the District of Pamplemousses, through the co-operation of Dr. André the work was partly reorganised on Health Centre lines ; and his experience has demonstrated that the Health Centre System shows promise of being an effective means of promoting the health of the rural population. It has also shown where adjustments require to be made in order to obtain more efficiency in the system. Unfortunately these adjustments largely concern matters involving increased expenditure since they mean relieving the Health Officer of work which will require to be carried out by other means.

Departmental consideration is still being given to this important subject.

3. In the other rural districts little change has taken place administratively excepting to confide all sanitary matters to the Government Medical Officer, though the powers of Sanitary Authority remain vested in the Director for the time being. The Government Medical Officer is now given control of the district sanitary staff and it is hoped that the embodiment of medical relief and sanitation in the one Medical Officer will ensure a more harmonious relationship between the department and the people. The sanitary staff of the Plaines Wilhems district worked under the direction of the Dircetor ; while that of Port Louis was supervised by the Medical Officer of Health.

4. The professional staff of the Department on the 31st December, 1932, was as follows :

Director : J. Balfour Kirk, M.B., Ch.B., D.P.H., D.T.M. & H. (on leave).
Deputy Director Medical Services : L. A. C. d'Arifat, L.R.C.P., M.R.C.S.
Medical Officer of Health, Port Louis and Port Health Officer : L. M. J. Raymond Pilot, M.B., B.S., M.R.C.S., L.R.C.P., D.T.M. & H.
Pathologist : A. R. D. Adams, M.D.
Superintendent, Civil Hospital : Y. Cantin, M.R.C.S., L.R.C.P., D.T.M.
1st Resident Surgeon, Civil Hospital : L. N. R. Comty, M.B., B.S., M.R.C.S. (on leave).
2nd Resident Surgeon, Civil Hospital : F. Bouloux, L.R.C.P., M.R.C.S. (temporary and provisional).
3rd Resident Surgeon, Civil Hospital : H. Joomaye, M.R.C.S., L.R.C.P., D.T.M. & H. (acting).
Superintendent, Victoria Hospital : L. R. du Verge, *M.C.*, M.R.C.S., L.R.C.P.

1st Resident Surgeon, Victoria Hospital : L. V. PIERRE GOUPILLE, M.D., (Paris).
2nd Resident Surgeon, Victoria Hospital : RALPH MAYER, L.R.C.P., M.R.C.S., (temporary and provisional).
Superintendent, Mental Hospital : J. D. DYSON, M.B., B.S., D.P.M., M.R.C.S., L.R.C.P.
Assistant Superintendent, Mental Hospital : J. F. E. BRUNEL, M.D., (Montpellier)—(temporary and provisional).
Police and Prison Surgeon, Port Louis : R. PIERRE, M.B., B.S., L.R.C.P., M.R.C.S., D.T.M. & H., D.P.H. (temporary and provisional).
Government Medical Officer, Plaines Wilhems and Black River : J. J. MAINGARD, *M.B.E.*, L.M.S., S.A., (London) Medecin Colonial (Paris).
Superintendent, Leper Hospital : J. H. ANDRE, M.R.C.S., L.R.C.P.
Medical Officer in charge Hookworm and Malaria Department : L. J. MCGREGOR, M.B., B.S., M.R.C.S., L.R.C.P., D.T.M. & H. (temporary and provisional).
Radiologist : W. R. DUPRE, L.R.C.P. & S., L.F.D. & S.
Sanitary Engineer : vacant.

DISTRICT MEDICAL OFFICERS.

(Government Medical Officers having charge of a district hospital and of all the dispensaries in their district).

Pamplemousses : J. H. ANDRE, M.R.C.S., L.R.C.P.
Rivière du Rempart : S. PIARROUX, L.R.C.P. & S., L.F.D. & S.
Flacq : R. LAVENTURE, M.D. (Montpellier, France)—(on leave).
Grand Port : R. LAVOIPIERRE, M.D. (Paris), D.T.M. (Paris), L.R.C.P, L.R.C.S., L.R.F.P. & S., D.P.H. (temporary and provisional).
Savanne : J. CANTIN, M.D. (Paris)—(temporary and provisional).
Moka : R. PILOT, M.B.E., M.D. (Lyons)—(on probation).

LEAVE, MUTATIONS, &c.

5. Dr. J. B. Kirk proceeded on European leave on the 22nd December, 1932, and Dr. L. A. C. d'Arifat was appointed as Acting Director. In view of this arrangement, Dr. L. J. McGregor was appointed temporarily as Medical Officer in charge of the Hookworm and Malaria Department.

Dr. L. N. R. Comty, Resident Surgeon, Civil Hospital, went on leave on the 22nd December, 1932.

Dr. L. R. du Vergé, Superintendent, Victoria Hospital, returned from leave and resumed duty on the 18th April, 1932.

Dr. Y. Cantin, Superintendent, Civil Hospital, returned from leave and resumed duty on the 15th October, 1932.

Dr. L. V. P. Goupille, Resident Surgeon, Victoria Hospital, returned from leave and resumed duty on the 10th February, 1932.

Dr. H. Mollières, Assistant Superintendent Mental Hospital, resigned and was replaced by Dr. J. F. E. Brunel on the 1st April, 1932.

Miss C. D. Jackson resigned her appointment as Nursing Sister on account of ill-health and sailed on the 21st June, 1932.

To allow Dr. S. E. Mangenie to proceed to Europe, on leave, Dr. H. E. Madge, Police and Prison Surgeon, was transferred to Rodrigues as Government Medical Officer of the Dependency. He left Mauritius on the 15th December, 1932, and was replaced by Dr. R. Pierre as Police and Prison Surgeon.

Owing to the illness of Dr. R. Laventure, Dr. F. Bouloux of Civil Hospital was temporarily posted as Government Medical Officer, Flacq, on the 15th December, 1932, and Dr. H. Joomaye, private practitioner, was temporarily employed at the Civil Hospital. The services of Dr. Joomaye with Government were continued owing to the transfer of Dr. H. E. Madge to Rodrigues.

Dr. L. A. C. d'Arifat was appointed as Deputy Director with effect from the 1st December, 1932.

Dr. A. R. D. Adams, M.D., arrived and assumed duty as Pathologist on the 12th August, 1932.

DEATHS.

6. The Department sustained a grievous loss by the death of the newly-appointed Deputy Director, Dr. Evariste de Robillard, at Paris on July 2nd, 1932. Dr. de Robillard has rendered conspicuous service in the rehabilitation of the Civil Hospital, Port Louis, and in furthering important developments initiated by Dr. F. Rouget, by which the institution was greatly improved structurally and administratively. Subsequently, as Assistant Director, he performed much good work of a general administrative kind. His loss has deprived the Department of a capable officer and many of his colleagues of a staunch friend and agreeable companion.

Another loss was experienced when Mr. Lois Naz, M.I.C.E., died comparatively suddenly on the 6th September, 1932. Mr. Naz had been associated with the Department during most of his official career. He was responsible for many important anti-Malarial works and for the design and working of the plant for the purification of the Port Louis water. As a result of his work Port Louis is now enjoying a purer water supply than it has known for many years. Mr. Naz was a capable and conscientious officer, an agreeable colleague, whose sole aim was to render to his country the best service of which he was capable.

LEGAL.

7. Ordinance 24 and 36 amending the Public Health Ordinance of 1925, and Ordinance 37 amending the Lunacy Ordinance of 1906, were enacted during the year.

FINANCIAL.

	Rs.
8. The revenue of the Colony for the financial year 1931-32 was	12,160,278.81
The expenditure on Medical and Sanitary Services out of the Revenue was	1,601,590.17
The expenditure on Medical and Sanitary Services from the Improvement and Development Fund was ...	91,305.40

II.—Public Health.

9. Climatic conditions were kinder to the colony than they have been for some years. There were no catastrophic cyclones or floods. Unfortunately the economic state of the Colony was in much the same condition as in the previous year. Nevertheless the mortality rates have shown a surprising improvement. There is no doubt that the rates for 1931 were abnormally high and that it was unlikely that they would keep at that level for long.

During 1932 the vital statistics improved. The death rate fell from 39.1°/oo to 32.8°/oo ; the infantile mortality rate was 158.9°/oo, last year it was 203.0°/oo and the still-births numbered 995 as compared with 1,203. The maternal mortality rate was 9.6°/oo against 13.9°/oo for the previous year.

These figures are interesting as shewing the great fluctuation to which the vital statistics of the Colony are liable. This tendency is always present in statistics which deal with fairly small numbers ; the colonial population is a small statistical unit when compared with other countries, and its statistics are apt to be unduly sensitive. It is therefore wise to exercise caution in drawing inferences from the annual statistics of the Colony, since these if untempered by critical appreciation, may lead to undue optimism on one occasion or undue pessimism on another.

Another point brought out by the vital statistics of the past few years is the dependence of good vital statistics upon the general prosperity of the people. This is a factor upon which the Health Department can exert little influence. The principal directions in which a Health Department can influence the public health are in the prevention or control of epidemics of communicable disease. That this is the essential function of the Department is frequently overlooked, and disappointment is often felt when departmental action fails to effect its purpose in other directions. It may be argued that a Health Department should take cognisance of all matters affecting the health of the population. This is freely admitted, and is done so far as is practicable ; but so far as administrative action is concerned, the Department can merely deal with those conditions susceptible to remedial or preventive treatment, and these, in practice become limited to the care of the sick poor, the care of expectant mothers, infant welfare, the safeguarding of the public food supply and the institution of measures designed to prevent or control outbreaks of communicable disease.

With the exception of sharp outbreaks of what was probably bacillary dysentery in Plaines Wilhems and Moka and a general outbreak of influenza, there were no epidemics during the year. In spite of those outbreaks the total number of cases of dysentery treated at dispensaries was 2,742 less than in 1931, and the deaths ascribed to dysentery in the colony as a whole numbered 791 as compared with 805 of the previous year. The hospital admissions were higher : 1,173 as compared with 1,096 in 1931.

In order to enable the Department to obtain better epidemiological intelligence regarding dysentery, this disease was made notifiable for a short period. At the same time tuberculosis was removed from the list of diseases compulsorily notifiable. The notification of tuberculosis over a number of years has served its purpose in providing a record of the amount of the disease in the Colony, and as it has reached the limit of its effectiveness for the time being, it may safely be discontinued until such time as effective means may be devised for undertaking measures for the control of the disease. The amount of tuberculosis in a population depends very largely upon the degree of prosperity and general standard of living of the people, and until these basic factors improve, the results of the application of *ad hoc* measures are unlikely to justify the expenditure involved.

10. 159 patients suffering from malignant disease were admitted to the hospitals, as compared with 158 during 1931. 93 of the tumours were situated in the female genital organs and breast ; the stomach and liver accounted for 21 ; peritoneum and intestinal tract 15 ; buccal cavity 5 ; and the skin 17. In 8 cases the site was not specified. The non-malignant new growths numbered 101.

The total number of deaths from Cancer and other tumours in the Colony is given by the Registrar-General as 89.

(A).—COMMUNICABLE DISEASES.

INSECT-BORNE DISEASES—MALARIA.

11. The total number of patients suffering from malaria admitted to the hospitals was 3,561, a decrease of 1,119 over the figure for the previous year. The case mortality was 3.20%.

The following tabular statement shows the admissions for malaria and deaths ascribed to it during this and the preceding year.

Institutions.	MALARIA.			
	Admissions.		Deaths.	
	1931	1932	1931	1932
Civil Hospital	1,441	1,156	50	42
Port Louis Prison	131	103	1	—
Long Mountain Hospital ...	387	377	21	15
Poudre d'Or Hospital	307	231	10	5
Flacq Hospital	424	252	18	16
Mahebourg Hospital	391	231	19	8
Souillac Hospital	549	342	16	9
Victoria Hospital	619	510	16	11
Beau Bassin Prison	116	141	—	—
Moka Hospital	171	136	8	6
Mental Hospital	113	68	3	2
Barkly Industrial School ...	31	14	—	—
	4,680	3,561	162	114

The total number of deaths in the Colony from malaria and malarial cachexia, 3,032, is equivalent to a death rate of 7.7°/oo living. The rate for 1931 was 10.07°/oo.

12. Owing to the disorganisation attendant upon the transition from the old type of organisation to the new, it has not been possible to include in this year's report the splenic indices of school children in the various districts of the Colony. This feature of the report will be resumed as soon as the Department is restored to its full strength.

PLAGUE.

13. The freedom which the Island has enjoyed from plague since 1927 has enabled expenditure upon rat catching to be reduced. Rodent surveillance is now limited to the harbour area of Port Louis and a strip of the town bordering on the harbour and bounded by Royal Street on the landward side. The object of the rodent surveillance staff is to trap this area systematically in such a way as to cause each premises to be visited at least once a month. All rodents trapped or found dead in this area are microscopically examined for plague infection. The system of recording the data has been improved and better surveillance can now be exercised over the staff.

The other plague-preventive work carried out is recorded in the report of the Medical Officer of Health, Port Louis. (Appendix IV.)

TYPHUS FEVER.

14. No case of this disease was notified during the year.

(B).—INFECTIOUS DISEASES.

SMALLPOX.

15. There has been no smallpox in the colony since 1913. 7,218 children were vaccinated during 1932 by the Public Vaccinators. The data are given hereunder :—

Successful vaccinations on 1st attendance	6,394	
,, ,, on 2nd and subsequent attendances	348	
		——6,742
Unsuccessful vaccinations		461
Vaccinations in which the results could not be ascertained ...		15
Total ...		7,218

The proportion of children vaccinated by Government Vaccinators to live births is 70.3%.

ENTERIC FEVER.

16. 109 cases were notified; the districts in which they occurred are shown in the following table.

ENTERIC FEVER FOR THE YEAR 1932.

Districts	January	February	March	April	May	June	July	August	September	October	November	December	Total for the year
Port Louis	2	2	4	—	—	—	1	2	—	—	1	2	14
Plaines Wilhems ...	3	4	2	1	—	3	2	2	3	9	5	9	43
Moka	—	1	1	—	—	3	2	3	2	—	—	—	12
Pamplemousses ...	1	—	—	—	—	—	—	—	—	1	—	—	2
Rivière du Rempart	—	1	—	—	—	—	—	—	—	—	—	—	1
Flacq	1	—	1	—	—	—	2	—	1	3	—	—	8
Savanne	3	2	—	—	—	—	4	—	2	4	—	3	18
Grand Port ...	—	1	—	1	2	1	—	—	—	—	—	6	11
Black River ...	—	—	—	—	—	—	—	—	—	—	—	—	---
Total cases ...	10	11	8	2	2	7	11	7	8	17	6	20	109

The improvement seen in the Port Louis statistics last year has been maintained. During 1932, 14 cases were notified and there were three deaths ascribed to this disease. Apparently the worst district in the Colony for enteric fever is Plaines Wilhems. It is the district which has the most salubrious climate, the safest water supply and the best housing in the Colony. It is possible that of the 43 cases notified, some were contracted elesewhere than in the district. Another factor which may be responsible for the surprising disproportion seen in the number of cases notified in Plaines Wilhems as compared with the more unhealthy rural districts is that in Plaines Wilhems medical aid can readily be obtained, whereas in the rural districts medical aid is seldom summoned, so that a number of cases occurring in the rural districts may not be notified because the disease is not recognised.

No actual outbreaks of the disease occurred. The cases were sporadic and in no instance did the sanitary inquiry which is made in each case reveal the source of the infection. In Savanne a number of cases were suspected to originate in the use of polluted water, and in Plaines Wilhems, water-cress,

which is eaten raw, was thought to be the source of infection. On account of the long incubation period of the disease, the source of infection in sporadic cases in the tropics is extremely difficult to trace.

DIPHTHERIA.

17. 72 cases of Diphtheria were notified in 1932.

PUERPERAL STATE.

18. 108 deaths were registered as being due to the puerperal state.

The deaths are classified as under :—

Puerperal albuminuria and convulsions	10
Puerperal Haemorrhage	10
Puerperal Sepsis	20
Abortion	1
Other accidents of pregnancy	2
Other toxaemias of pregnancy	1
Other accidents of childbirth	64

26 cases of puerperal septicaemia, of which 9 proved fatal, were treated in hospitals—a case mortality of 34.6%.

The maternal mortality rate (the ratio of the number of deaths ascribed to the puerperal state to the total number of births including stillbirths) was 9.6°/oo in 1932 as compared with a rate of 13.9°/oo for the previous year.

The maternal mortality rate shows a distinct improvement over that of the previous year.

ERYSIPELAS.

19. 52 cases were notified, compared with 80 in 1931. 11 deaths were registered.

TUBERCULOSIS.

20. Out of the 12,848 deaths of 1932, 421 were due to tuberculosis giving a death rate of 10.7 per 10,000 inhabitants.

LEPROSY.

21. The report on the work of the Leprosy Board and of the Leper Hospital appears in Appendix VI.

CHICKEN POX.

22. 2 cases of this disease were treated at the Victoria Hospital.

VENEREAL DISEASES.

23. 314 cases of syphilis, with 14 deaths, were admitted to the hospitals during the year. 272 cases of gonorrhoea were treated, and 73 cases of soft chancre.

(C).—HELMINTHIC DISEASES.

ANKYLOSTOMIASIS.

24. References to this condition are to be found in Appendix II.

The number of cases of this condition treated at the hospitals and dispensaries was 22,535 and the number of deaths in hospitals due to hookworm disease was 132.

SCHISTOSOMIASIS.

25. 81 cases of this condition were treated in the hospitals during the year, and 177 at the dispensaries. The local intermediate host has not yet been determined.

VITAL STATISTICS.

26. The Vital Statistics of the Colony are calculated on the basis of the number of the population on the 1st January of the year under reference.

The distribution of the population and its density are shewn hereunder.

ESTIMATED POPULATION OF MAURITIUS ON THE 1ST JANUARY, 1932.

Districts	Area in square miles	Total population	Density per square mile
Port Louis	16	54,290	3393.1
Pamplemousses	69	36,299	526.0
Rivière du Rempart ...	57½	30,518	530.7
Flacq	115	51,982	452.0
Grand Port	101	48,007	475.3
Savanne	93½	30,721	328.5
Plaines Wilhems	78	95,892	1229.4
Moka	89	29,265	328.8
Black River	101	14,070	139.3
Grand Total	720	391,044	543.1 (mean)

The chief feature of interest here is the high density of population : 543.1 per square mile.

MARRIAGES.

27. 1,271 marriages were celebrated in 1932 as compared with 1,236 in 1931 ; showing an increase of 35. This is equivalent to a marriage rate (number of persons married to every thousand of population) of 6.6°/oo against 6.2 in 1931.

BIRTHS.

28. The total number of births for the year was 10,266 (5,164 males and 5,102 females); 4,022 of these occurred in the General, and 6,244 in the Indian population. The birth rate was 26.2°/oo against 30.2°/oo in 1931.

The District birth rates (on population as at 1st January of each year) and the five-year mean rates are as follows :—

District	1928	1929	1930	1931	1932	Mean °/oo
Port Louis ...	38.4	35.6	35.5	33.1	29.2	34.36
Pamplemousses ...	32.6	31.2	26.0	23.2	18.7	26.34
Rivière du Rempart	38.7	35.7	32.1	29.9	25.8	32.44
Flacq ...	31.5	29.6	27.2	25.6	20.9	26.96
Grand Port ...	37.3	32.4	30.0	27.6	24.9	30.44
Savanne ...	39.5	31.3	25.7	28.2	22.6	31.46
Plaines Wilhems ...	42.7	39.1	37.7	35.6	32.2	37.46
Moka ...	39.7	33.7	30.3	31.6	29.0	32.86
Black River ...	36.8	30.3	31.2	26.2	20.5	29.0
Whole Colony	37.9	34.0	31.5	30.2	26.2	31.96

It will be observed that the birth-rate was lower than that of last year.

DEATHS.

29. During the year 1932 the total number of deaths was 12,848 (6,917 males and 5,931 females); 3,636 in the General and 9,212 in the Indian population. This number is a decrease of 2,619 over the total deaths of 1931.

The death rate for the Colony was 32.8 compared with 39.1°/oo for 1931 and with 31.6°/oo for the quinquenial period preceding 1932. The month of maximum mortality was February whilst in 1931 it was May.

The following table shows the district death-rates yearly for the five yearly periods 1928-32 and the average rates for the same period :—

District	1928	1929	1930	1931	1932	Mean °/oo
Port Louis ...	32.1	35.0	43.3	38.6	33.6	36.52
Pamplemousses	40.1	37.8	48.3	46.6	37.1	41.98
Rivière du Rempart	26.4	28.1	37.9	45.6	29.6	33.52
Flacq ...	33.1	33.4	37.2	46.7	32.7	36.62
Grand Port ...	27.1	31.7	37.7	44.2	37.3	35.60
Savanne ...	27.0	30.6	27.8	44.7	39.3	33.88
Plaines Wilhems ...	19.0	22.2	25.6	25.8	24.7	23.46
Moka ...	26.6	28.9	30.9	34.7	32.7	30.76
Black River ...	34.0	44.0	39.5	47.2	51.0	43.14
Whole Colony	28.2	30.63	35.4	39.1	32.8	33.20

The death-rate for Plaines Wilhems is the lowest death-rate of all the districts of the Colony.

The next table, with the figures of 1931, inserted for purposes of easy comparison, exhibits the causes of death and rates classified according to the "Manual of the International List of Causes of Death" adopted by the Registrar General of England. (Based on the 4th Decennial Commission, Paris, 1929).

Group	No. of deaths 1931	No. of deaths 1932	Rate per °/oo 1931	Rate per °/oo 1932
1. Infectious and Parasitic Diseases ...	6,850	5,485	17.3	14.0
2. Cancer and other tumours ...	84	89	.2	.2
3. Rheumatism, diseases of nutrition, etc.	136	121	.4	.3
4. Diseases of the blood and blood-forming organs	158	101	.4	.3
5. Chronic poisoning	2	2	.0	.0
6. Diseases of the nervous system and sense organs	541	476	1.4	1.2
7. Diseases of the circulatory system ...	278	340	.7	.9
8. Diseases of the respiratory system ...	2,233	2,055	5.6	5.2
9. Diseases of the digestive system ...	1,740	1,293	4.4	3.3
10. Non-venereal diseases of genito-urinary system and annexa ...	868	856	2.2	2.2
11. Diseases of pregnancy and child-birth	183	108	.5	.3
12. Diseases of the skin and cellular tissue	38	46	.1	.1
13. Diseases of bones and organs of locomotion	3	10	.0	.0
14. Congenital malformations ...	2	1	.0	.0
15. Diseases of infancy ...	1,039	764	2.6	1.9
16. Senility	440	296	1.1	.7
17. Deaths from violence	139	120	.4	.3
18. Ill-defined causes	733	685	1.8	1.8
	15,467	12,848	39.1	32.8

The more notable causes of death were as under:—

Diseases	No. of deaths		Rate per °/oo living	
	1931	1932	1931	1932
Malaria and malarial cachexia ...	3,984	3,032	10.07	7.75
Pneumonia and broncho—and lobar pneumonia	1,473	1,429	3.72	3.91
Influenza	351	725	.88	1.85
Diseases of early infancy	1,039	764	2.62	1.95
Phthisis and tuberculosis	504	421	1.27	1.07
Diarrhoea and Enteritis	1,518	1,097	3.83	2.80
Bronchitis	602	462	1.51	1.15
Old-age, debility	440	699	1.11	1.78
Dysentery	805	791	2.03	2.02
Albuminuria, nephritis and uraemia ...	837	805	2.11	2.05
Heart diseases (organic)	206	239	.52	.61
The puerperal state	183	108	.45	.27

INFANTILE MORTALITY.

30. The infantile mortality rate is the number of deaths of infants under one year of age occurring in any year for every thousand live births registered during the same year.

The rate for 1932 was 158.97°/oo as compared with 203°/oo for 1931.

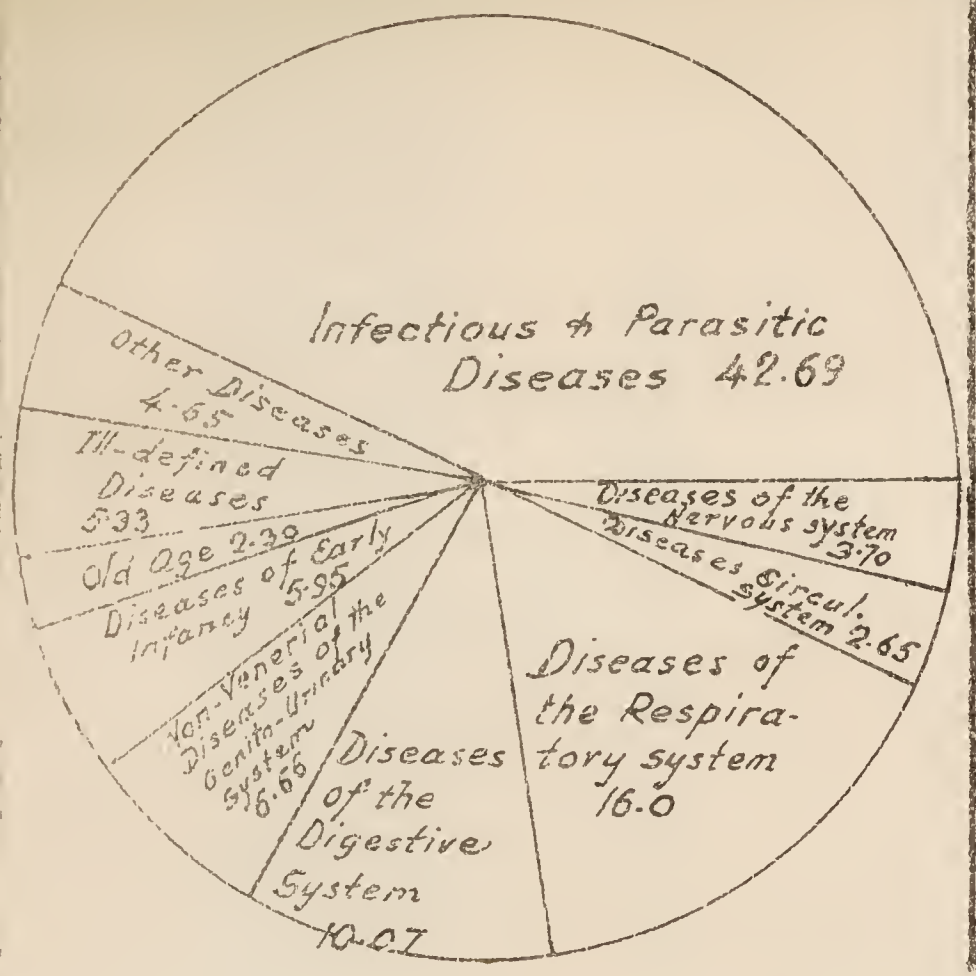
The deaths under 5 years were distributed as follows :

	Males	Females	Total
Under 1 year	871	761	1,632
1 year and under 2 years	214	235	449
2 years and under 3 years	198	209	407
3 years and under 4 years	125	151	276
4 years and under 5 years	88	100	188
	1,436	1,456	2,952

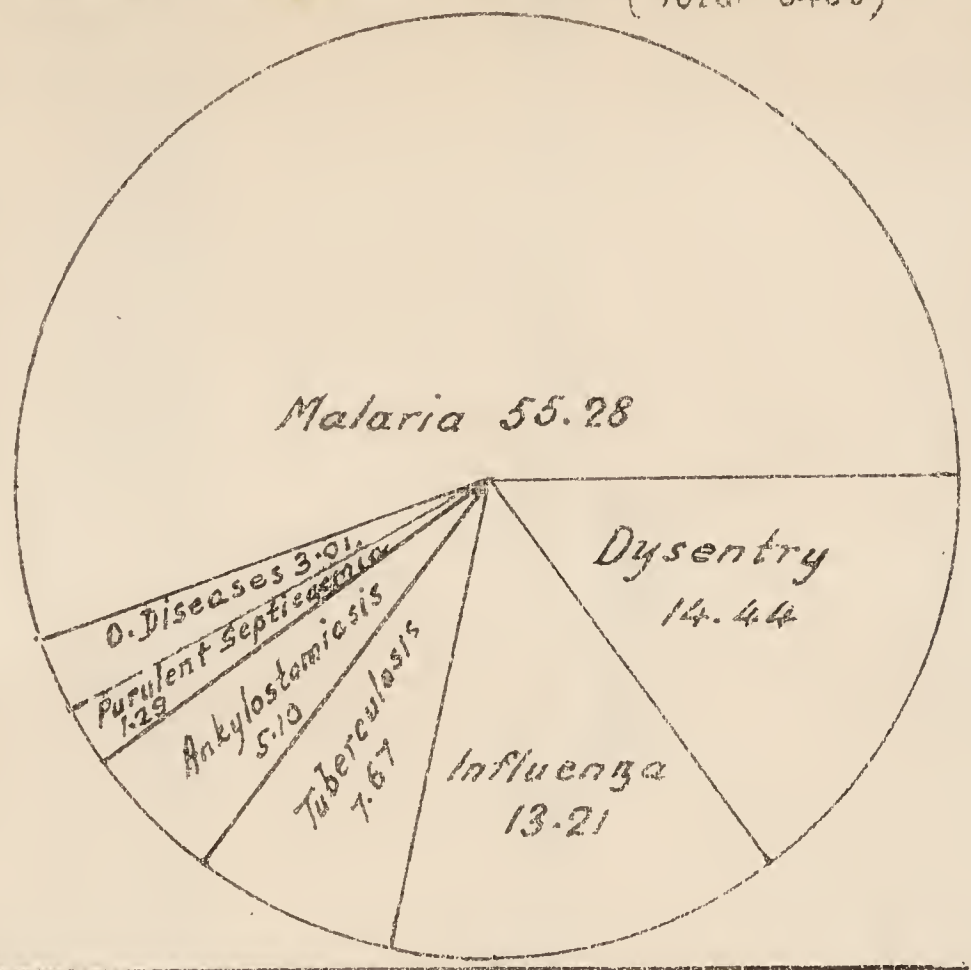
The following table shows the grouping of these deaths according to the causes inscribed on the death certificates :—

Cause of Death	Under 1 year	1 to under 5 years
Infectious and Parasitic Diseases	387	704
Rheumatism, Diseases of Nutrition	10	6
Diseases of the blood-forming organs	2	1
Nervous system and organs of special senses ...	46	79
Circulatory system	4	4
Respiratory system	208	189
Digestive system	178	201
Non-venereal diseases of the genito-urinary System and Annexa	4	40
Skin and cellular tissue	6	1
Bones and organs of locomotion	—	1
Malformations	1	—
Early Infancy	764	—
Affections produced by external causes	3	11
Ill-defined causes	19	83
All causes ...	1,632	1,320

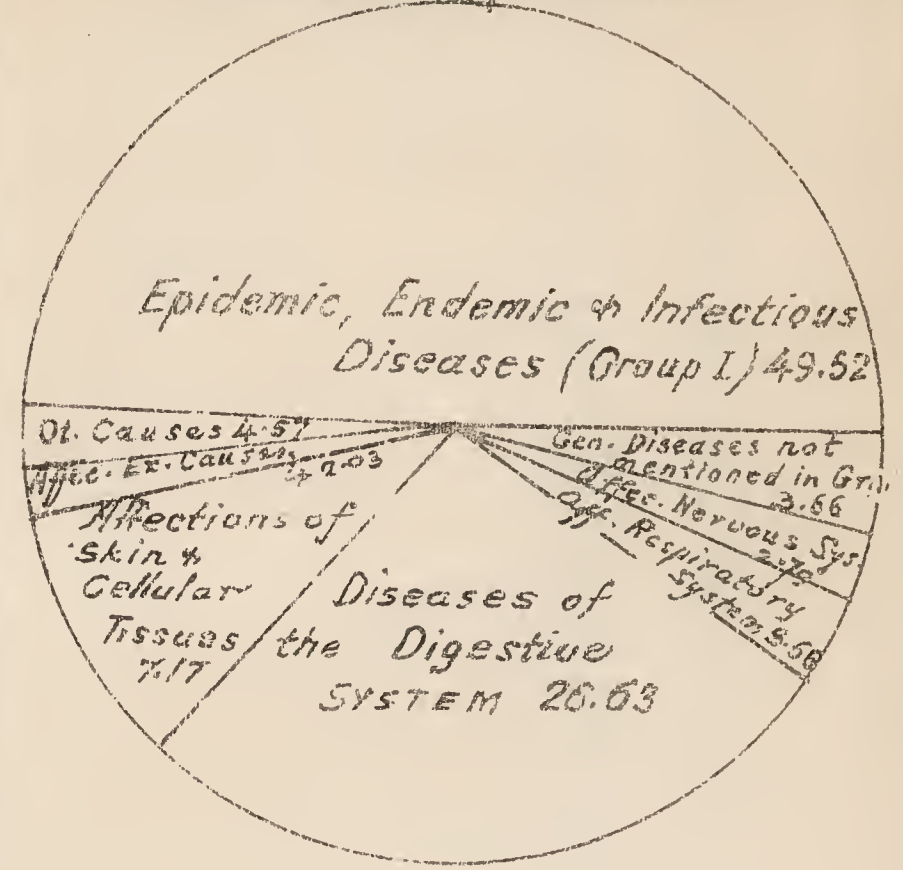
Percentage Classification of TOTAL DEATHS (12,848)
(from Registrar General's Report)



Percentage Classification of DEATHS DUE TO INFECTIOUS AND PARASITIC DISEASES
(Total 5485)



Percentage Classification of DISEASES in out-Patient Population TREATED at Public Dispensaries



OTHER DISEASES

Cancer & other Tumours	.68
Rheumatism & Diseases of Nutrition	.94
Diseases of the blood & blood-forming Organs	.79
Diseases of Pregnancy & Child birth	.85
Deaths from violence	.93
Diseases of skin, bones, Congestional ... ... malformation chronic poisoning	.46
TOTAL	4.65

OTHER CAUSES

Affections Circulatory System	1.54
Genito-Urinary System	2.22
Circulatory, puerperal state, Diseases of bones diseases of Infancy, Ill-defined diseases	.78
TOTAL	4.54

ERRATUM

Death due to *Melaena Neonatorum* in 1932 should read 1 instead of—.

The distribution of the deaths attributed to the diseases of early infancy and a comparison of these figures with those of 1931 is shown below :—

Designation of Diseases and Accidents	1931	1932
Infantile debility	917	695
Premature Birth	105	62
Atelectasis	7	3
Injuries at birth	3	2
Diseases of umbilicus, etc.	3	1
Melaena neonatorum	1	—
Pemphigus neonatorum	2	—
Other disease peculiar to early infancy	1	—
Total	1,039	764

STILL-BIRTHS.

31. A still-birth is defined by the Registrar General as " a child born dead at or after the seventh month of pregnancy."

The number of still-births registered during 1931 and 1932 is as under:—

	Males		Females		Total	
District	1931	1932	1931	1932	1931	1932
Port Louis ...	102	72	83	65	185	137
Pamplemousses	59	34	34	30	93	64
Rivière du Rempart	78	46	57	46	135	92
Flacq	100	85	68	66	168	151
Grand Port ...	83	71	67	55	150	126
Savanne ...	59	41	48	31	107	72
Plaines Wilhems ...	135	129	136	107	271	236
Moka	44	49	44	40	88	89
Black River ...	21	22	13	6	34	28
	681	549	550	446	1,231	995

It is equivalent to 96.9°/oo of live births, for the same period, as compared with 103.1°/oo for 1931.

The still-births are distributed as follows for the two great classes of the population.

	Males	Females	Total
General population	153	118	271
Indian population	396	328	724
Total	549	446	995

III.—Hygiene and Sanitation.

INSECT-BORNE DISEASES.

MALARIA.

32. We seem to be entering into a new era with regard to the study of Malaria, and curiously enough, the advances already made, and in prospect, have not been made by study of the disease in tropical regions, but in the hospitals in the temperate climates of Europe and North America where much work has been done upon the effects of malaria upon certain diseases of the nervous system. In the course of those studies it has been found that persons

infected with the disease, tend to become immune to the particular strain of parasite concerned, should they survive the first attack ; that certain strains of parasite are more deadly than others ; that different strains react differently to quinine ; and that certain new synthetic drugs, namely plasmochin and atebrin, appear to have value in supplementing quinine treatment, though they have not displaced it from its position of being still the most potent remedy we possess for malaria. Totaquina has been found to be slightly less potent than quinine in minimal doses, but to equal its potency in the doses in which these drugs are usually administered.

33. If we regard malaria in the Colony in the light of the new knowledge the situation is broadly as follows.

The Colony can be subdivided into three regions: the coastal belt where the disease is endemic ; Port Louis, a city lying in the coastal belt with features of its own; and the central Macgregor Zone, the central area of the Colony lying within the general 600 foot contour. In the coastal belt the immunity of the population is high ; Port Louis contains probably a larger proportion of susceptible persons than is found in the coastal belt, while Plaines Wilhems will probably be found to contain a high proportion of susceptible persons. Dr. d'Arifat's report, shewing that 1,121 persons out of 2,665 examined harboured the parasites in their blood, and yet were not suffering from malaria, points to the local infection not being a very virulent one, or to local immunity being high.

In any case it appears that the three regions under review call for different treatment. In the coastal belt the most efficacious measure seems to be to make totaquina available for use in cutting short the bouts of fever. No other effective action appears to be possible in this belt without the continual expenditure of vast sums of money.

34. In order to make totaquina available to the rural population arrangements were made with the Chinese Chamber of Commerce for this remedy to be stocked by Chinese shops all over the island and sold to the public at very little more than the cost of manufacture. The retail price has been fixed by agreement at Rs. 10 per 1,000 tablets of 5 grains, and it is a condition of the supply that this price shall not be exceeded. The Chinese Chamber of Commerce was selected as the means in the first instance of instituting this measure as it was the only organisation through which shopkeepers in remote districts could be approached, but any shopkeeper, on application to the Medical Storekeeper, may obtain supplies for sale on these terms.

A number of proprietors of Sugar Estates have also availed themselves of this source of supply and during the year 156,850 tablets were sold in the period 1st January to 31st December.

This transaction is made by means of an advance account, new supplies being purchased by the revenue derived from sales.

35. Most of the malaria of Port Louis occurs on the outer fringes of the town and in association with the numerous streams which, rising in the surrounding hills, or from springs, traverse the town on their way to the sea. In the suburban areas casual water nuisances, caused by leaking pipes or defective provision for the disposal of waste water are also operative in providing breeding places for the common vector: *A. costalis*.

During the dry season of the year the volume of water running through those stream beds is small. Frequently in the extra-urban area, there is no actual stream, merely a succession of pools in the bed of the river ; the water finding its way to the sea by seepage below the surface. In the wet season, a heavy shower of rain converts the streams into torrents; erosion of the talus composing the hillsides washes huge quantities of rubble and boulders into their beds, the torrent frequently breaks its banks and scours out another

channel, and in its passage through the intra-urban parts of the streams, where fine old masonry conduits have been constructed, often tears parts of the masonry out of its bed and leaves ideal breeding places for anophelines when the flood subsides.

It is clear that under such conditions money spent on keeping such works in order is largely wasted. The area to be covered is so wide that while one place is being cleared of obstruction or is being repaired, the others are keeping up the supply of anophelines; in spite of the oiling measures which are instituted as a routine. And no sooner is the work completed than we are into another wet season when the disastrous history of the previous year may be repeated.

It is clear that the solution to the problem in Port Louis is the regulation of flood water. None of the measures hitherto attempted has succeeded in its object in the absence of any effective regulation of floods. The only radical measure appears to be to impound by means of dams, the flood water coming down the Pouce and La Paix valleys. The lakes so formed are unlikely to act as large mosquito nurseries provided that a small staff is employed in keeping the edges clean. During the long dry season the impounded water can be released in a regulated flow, and damage to the masonry conduits thus prevented. Were this to be done the most fruitful source of malaria would be removed, and after the dam is made permanent drainage works may be undertaken with some prospect of success.

The central Macgregor zone, so far as malaria is concerned, resolves itself into the districts of Plaines Wilhems and Moka. Plaines Wilhems is the most densely populated of the rural districts and it contains about a quarter of the total population of the Colony. The climate is cooler, and conditions are unfavourable for extensive mosquito breeding during three or four months of the year. It may be presumed that it contains most of the persons in the Island susceptible to malaria, living in more or less close proximity to those already infected. Malaria has not yet appeared to threaten Plaines Wilhems to any great extent, but the work of the Malaria Branch shows that there is a steady if imperceptible infiltration of the factors which may, at some future date, in the absence of remedial measures, be responsible for an extensive outbreak.

The appearance of the motor bus and its instant popularity have accelerated the infiltration by providing a rapid and cheap means whereby susceptible persons may journey to endemic areas, there to be infected, and bring their infection home. It was these circumstances which led Dr. d'Arifat to propose the creation of an organisation for the intensive surveillance of the important parts of the Plaines Wilhems district. His scheme is to work excentrically from two points: one at Curepipe, the other to the west of Quatre Bornes, surveying and abolishing breeding places; treating infected persons; and by working outwards in a series of zones, ultimately covering the whole area.

So far as resources have permitted, a certain amount of work has been done along these lines and it is hoped that the full scheme will be put into operation at an early date.

36. His report, printed in Appendix III. records the details.

PLAGUE.

37. The first step in making Port Louis plague proof was effected by the completion of the Rat-proof Granary in January. As there has been no sanitary measure so generally misunderstood as the granary, the following account of it may be of value in enabling the reader to appreciate its sanitary function.

During 1922-25 while carrying out plague-control measures, I made a careful study of the records of the outbreaks which occurred year after year

from 1899 onwards. I was struck by the fact that, after the first few years, whereas during the period of the year August to February plague occurred generally throughout the city, in the inter-epidemic period, February to August, many more cases were registered from the central area where the grain-stores were situated, than from the other parts of the town. I accordingly investigated the rat plague during 1922-25, to see if the same features were shown by the epizootic as had formerly been displayed by the epidemics of the past. I found that plague in rats behaved in much the same way as it had done among human beings. During the inter-epizootic season, which corresponded with the inter-epidemic season, three-quarters of the total number of plague-infected rats came from the grain-store area. Investigations were also made upon the fleas parasitic upon the rats, because it is the infected rat flea which is generally responsible for spreading the disease, not only amongst rats, but among human beings. Large counts were made and it was found that the predominant flea was *X. cheopis,* a flea which is notorious as a disseminator of plague because, unlike many fleas parasitic on animals, it feeds almost as readily upon man as it does upon its usual host, the rat. Flea counts made on rats showed that the grain-store rats carried, on the average, more than double the number of fleas than did the rats obtained from premises outside the grain-store area.

The grain-store area was a veritable rat nursery. In it rats found everything necesary for their existence and propagation in large numbers: food, water, shelter and protection from their enemies. The area was grossly infested with them, and no measure short of complete reconstruction could have had any appreciable effect.

But before reconstruction could be effected another place was required for the grain, for it was principally the vast quantity of food available both for rats and fleas (the flea larvae feed mostly upon the organic matter contained in the dust among which they hatch from the eggs) which was the chief factor in causing their excessive numbers. It was necessary that the grain should be stored under conditions preventing the access of rats; and no such buildings were available. It was therefore proposed that a rat-proof granary should be built and that, on the completion of this building, all the grain required for the wholesale trade should be stored in it. The only grain which should be stored in Port Louis was the comparatively small stock required by retail grain shops. At first it was thought that fifteen bags would be enough, but it was finally decided to raise this figure to thirty bags. When the wholesale trade was confined to the granary, the retailers would be required to provide rat-proof storage for the quantities held in stock and in this way it was proposed to build out the rat from his principal food supply. The granary is now built and all that remains is to take the other measures indicated above. It is surmised that when the huge colony of rats at present supported so handsomely upon thousands of bags of grain contained in private stores finds that this supply gradually diminishes to such an extent as to become quite inadequate to feed it, the colony will disperse. Householders whose premises offer favourable conditions for the maintenance of rats will probably find that rats will appear on them in increased numbers. Any householder who finds this occurring may, on application to the Medical Officer of Health, Port Louis, be supplied with a number of rat traps, which he will be shown how to set, and arrangements will be made for the destruction of all rats brought by him to the office of the Medical Officer of Health.

From the plague-prevention view point, the dispersal of the huge grain-store rat colony will be the greatest single measure effectd by the Government since the disease appeared in 1899. It may take a number of years to reduce the rat population of the town itself to such numbers as may offer reasonable

guarantee of safety ; but even during this period, the risk of a big epizootic following upon the accidental importation of the disease will be substantially diminished, and the risk of the carry-over of the disease from one favourable season to another greatly lessened.

38. Routine rodent examination is now carried out only in Port Louis. The following tables record the work done in Port Louis :—

DESTRUCTION OF RODENTS.

Number trapped :—12,395.

RODENTS MICROSCOPICALLY EXAMINED.

Examined	Infection	Infection Rate
9,184	Nil	Nil

HELMINTHIC DISEASES.

ANKYLOSTOMIASIS.

39. Hookworm infection continues to be the major sanitary problem in the colony. Infestation with the hookworms is high; 80% infection in the rural population being a moderate estimate. Such a high infection rate is due to the density of the population and the continuance of soil pollution. Certain habits endorsed by divine sanction and reinforced by customs of venerable antiquity cannot be eradicated by the promulgation of regulations. Much tedious reiterative work will be needed even to make a small impression.

The infection is so widespread and so important that special measures are required for its control. It is too big to be controlled with any prospect of success by the health centre system. Accordingly it is proposed to employ three medical officers primarily upon treatment work as soon as means permit. As those officers will not be fully occupied by the treatment work, they will be given other duties which will be so arranged as not to interfere with their work in bringing this infection under control.

As a means of obtaining the co-operation of estate managers and other influential persons in the Colony the formation of a Hookworm Committee has been proposed, whose duty it will be to consider the situation in infected areas and arrange for the co-operation of the local estates' managers and others with the treatment officers.

40. The report on the Hookworm Branch appears as Appendix II.

SCHISTOSOMIASIS.

41. There is no advance to report regarding this subject.

ENTERIC OR TYPHOID FEVER.

42. It is expected that the improvements which have been effected in the main water supplies of the Colony will make epidemics of enteric fever a thing of the past. Most of the cases now occurring are sporadic, though family or small local outbreaks may occur. It is very difficult to trace the origin of such outbreaks, especially in rural areas where mild attacks may run their course unrecognised by the patient and unnotified to the sanitary authority. When typhoid fever is notified to the sanitary authority, the premises are visited by a sanitary officer who conducts an enquiry designed to trace the origin of the infection and advises those concerned regarding the means to be taken to prevent the spread of the disease. Disinfectants are supplied and their proper use explained. On the death or recovery of the patient a general disinfection is made of the premises and of effects likely to be contaminated.

It is seldom that the enquiry ever reveals the source of the patient's infection.

GENERAL MEASURES OF SANITATION.

NIGHT SOIL AND CONSERVANCY.

43. The report of the Medical Officer of Health describes the night soil and conservancy work done by the Department in Port Louis.

The night soil service at Curepipe is also carried out by the Health Department. Some 1,010 services are performed there daily on an average. The double-bucket system is in operation throughout the Island.

In other parts of the Colony where pail services exist, the work has been done either by the local authority, e.g., Rose Hill-Beau Bassin Board of Commissioners, or by contractors working under Government supervision. The services have been satisfactory upon the whole.

COLLECTION AND DISPOSAL OF REFUSE.

44. This has been effected satisfactorily during the year. The scavenging service at Vacoas is now carried out by the sanitary staff and complaints have been few.

The Port Louis refuse is still used for reclamation, and the operations are not unduly offensive though on account of the pressing need for economy they are not conducted as they would be in more prosperous times. If a top dressing of about one foot or eighteen inches of soil could be applied to the surface of the dumps after levelling, the appearance of these dumps would be greatly improved. At the present time this is out of the question.

In the townships the Boards are responsible for the conduct of the scavenging services and the work has been satisfactory. In other areas the Government undertakes the work, either directly as in Vacoas, and the Rose Belle-Mahebourg Sections, or through contractors.

WATER SUPPLIES.

45. The Medical Officer of Health's report records the condition of affairs in Port Louis.

The Northern Districts have now a satisfactory piped supply.

In the South, improvements have been made, but there are still places where the supply is very unsatisfactory.

LABOUR CONDITIONS.

46. It would appear that the general hygienic conditions under which contracted servants are housed on estates have been generally satisfactory.

There have been no widespread epidemics in the rural areas and the most insiduous and important infections from the economic point of view are hookworm infection and malaria, both of which are endemic, and practically widespread.

FOOD IN RELATION TO HEALTH AND DISEASE.

47. There are six public and seven private abattoirs in the Colony. The public abattoirs administered by the Municipality of Port Louis, the Boards of Beau Bassin, Rose Hill and Curepipe are each controlled by a veterinary officer.

The other abattoirs are conducted under the supervision of the sanitary staff.

The quality of the public milk supply is controlled by the Medical and Health Department.

MEASURES TAKEN TO SPREAD THE KNOWLEDGE OF HYGIENE AND SANITATION.

48. The Hookworm control staff deliver talks on hookworm infection and its prevention on the occasions on which mass treatments are being given. The sanitary staff have also been instructed to lose no opportunity of giving advice

on hygienic subjects in the course of their routine duties. It is hoped that by entrusting sanitary duties to the Government Medical Officers of the districts opportunity will be provided for the effective dissemination of a knowledge of elementary hygienic practice in the Colony. It is also hoped that as the Department attains its proper complement it will be able to reinforce the hygienic instruction given in the schools.

TRAINING OF SANITARY PERSONNEL.

49. The urgent need for retrenchment and the complete stoppage of recruitment for the junior posts in the Sanitary Branch of the Department has made formal lectures unnecessary. The closer association between the Medical Officer and the subordinate staff which will be effected by the reorganisation should result in a great improvement in the knowledge and performance of the junior members of the staff.

RECOMMENDATIONS FOR FUTURE WORK.

50. It is hoped that we are approaching the end of a period characterised by general unsettlement all through the Government service. What is now required is a decision upon the rates of pay to be allotted to the posts of the Department, so that it may at last be properly organised. For the past five years conditions have been extremely bad owing to the prevailing uncertainty and that the Department has been able to function without serious breakdown speaks volumes in favour of the staff.

IV.—Port Health Work and Administration.

51. The following table summarises the work done by the Port Sanitary Authority:—

	Sailing Craft	Steamers
Vessels arriving	15	186
Crew examined	240	17,445
Passengers examined	275	2,888
Vessels given pratique on arrival		134
Vessels given pratique after disinfection of the dirty linen and effects of the passengers, crew, fumigation and disinfection of the fore-castle ...		9
Vessels given pratique after disinfection of dirty linen, etc., and claytonisation of cargo		57
Vessels arriving from infected ports		67
Vessels detained for purposes of disinfection and fumigation on account of plague, cholera and smallpox		67

V.—Maternity and Child Welfare.

52. There are three agencies in Mauritius devoted to the prosecution of work on behalf of mothers and babies. Two of these agencies are voluntary societies: (*a*) The Mauritius Child Welfare which works at present in the Districts of Plaines Wilhems and Grand Port, and (*b*) the Oeuvre Pasteur de la Goutte de Lait confining its activities to Port Louis. Both do excellent work amongst the labouring classes, and the Government and other public bodies have recognised the value of the work they do by contributing to their revenue by grants from public funds. The de Chazal Fund has also made substantial contributions.

The direct activities of the Government have been limited to the training of midwives (see the following paragraph) and to the provision of a trained midwife at each of the rural hospitals. The duties of the hospital midwives consist of visiting expectant and nursing mothers, giving them advice and

attempting to persuade the expectant mothers to entrust the conduct of their confinement to qualified persons. Few of these midwives are of Indian race and the efforts to persuade the Indian community to abandon their traditional methods and to have their confinements conducted according to modern standards are still very disappointing. A still more disappointing feature is the apparent lack of Indian women of sufficiently good education to enable them to attain the modest standard laid down for candidates for midwifery scholarships, so that we are faced with this situation that the Indian community will not employ midwives who are not of their own race and are unable to produce suitable women of their own race for training. So long as these circumstances persist, little progress can be expected.

53. Summary of the work performed by the visiting midwives in 1932:—

Locality	No. of visits made	No. of confinements conducted
Curepipe	235	45
Grand Port	450	76
Flacq	400	5
Rivière du Rempart	234	112
Savanne	97	13

VI.—The Midwives Board.

54. This Board held 4 sittings during the year. The composition of the Board was as follows:—

The Director, Medical and Health Department, Chairman.
The Medical Superintendent, Civil Hospital.
The Medical Superintendent, Victoria Hospital.
Dr. E. Duvivier.
Dr. R. David.

55. 4 applications for registration were considered, and the Board being satisfied that the applicants were of good character and otherwise eligible, ordered that their names be entered on the Register of Midwives.

Fourteen candidates were selected for training as midwives in the different hospitals in the Colony. On the 24th February and 16th August, 1932, the Board held an examination for the award of certificates as second class midwives; 19 succeeded in obtaining their certificates (6 in February and 13 in August).

Two special examinations were held by the Midwives Board on the 20th April, 1932, and 6th December, 1932; four candidates were granted certificates as Labour Attendants and one as second class midwife.

The Regulations published under G.N. No. 180 of the 30th July, 1927, provide for two classes of midwife. The first class for literate persons of a good general education, the second class for women illiterate or uneducated but of known respectability and capacity. The policy of the Board is, naturally, to encourage the training of midwives of the first class rather than those of the second, but local conditions make the recognition of a second class indispensable in the meantime.

VII.—Hospitals.

56. The circumstances causing a diminution in mortality have also caused a diminution of morbidity: the number of in-patients treated in the hospitals of the Colony falling from 30,349 to 28,472. The number of confinements conducted in hospitals was 760 against 809 for the previous year.

One estate hospital was closed during the year which brings the total number of estate hospitals down to 40.

57. THE FOLLOWING TABLE SUMMARISES THE WORK OF THE INDIVIDUAL HOSPITALS.

HOSPITALS	Patients remaining on 31/12/31	New Admissions	Deaths	Patients remaining on 31/12/32	No. of beds	No. of surgical operations	Particular diseases causing largest number of admissions	Particular diseases causing largest number of deaths
Civil	186	8,134	539	181	289	2,350	Influenza, Malaria, Dysentery, Tuberculosis, Pneumonia, Bronchitis, Lymphangitis, Enteritis, Ankylostomiasis, Nephritis and Abscesses	Malaria, Tuberculosis, Broncho-Pneumonia, Enteritis, Ankylostomiasis and Nephritis
Port Louis Prison ...	5	518	3	4	16	28	Malaria, Influenza, Bronchitis, Pneumonia, Dysentery, Affections of the skin and cellular tissues, Diseases of the digestive system	Bronchitis and Pneumonia
Long Mountain	46	1,707	117	23	60	166	Malaria, Tuberculosis and Ankylostomiasis	Pneumonia, Malaria, Tuberculosis and Nephritis
Poudre d'Or	26	2,154	59	7	70	193	Influenza and Ankylostomiasis.	Ankylostomiasis and Influenza.
Flacq	18	1,745	124	34	86	265	Malaria and Influenza	Malaria and Nephritis
Mahebourg	36	2,441	154	32	108	584	Ankylostomiasis	Pneumonia
Souillac	73	2,396	143	40	94	393	Ankylostomiasis	Ankylostomiasis
Victoria	127	5,755	399	137	254	1,607	Ankylostomiasis, Malaria and Abscesses	Ankylostomiasis, Dysentery and Nephritis
Beau Bassin Prison ...	25	533	13	3	32	38	Influenza, Malaria, Diarrhoea and Cellulitis	Pneumonia
Moka	28	1,907	104	25	83	902	Ankylostomiasis, Appendicitis, Tonsilitis, Malaria, and Affections of the Eye	Diarrhoea
Mental (Infirmary for physical diseases)	9	523	49	4	58	193	Influenza, Malaria and Dysentery	Pneumonia, Influenza and Phthisis
Barkly Industrial School ...	—	80	—	—	12	3	Malaria, Influenza and Mumps	
Total ...	579	27,893	1,704	490	1,162	6,722		

HOSPITAL ADMINISTRATION.

58. In order to compare the expenditure of the hospitals with one another a return was required from each showing the daily expenditure incurred per patient under a number of items of the Estimates. The items were:— "Travelling and transport"; "Services rendered by the Railways"; "Provisions, fuel and lighting"; "Drugs and instruments"; "Implements, stores and disinfectants"; "Clothing, bedding, uniforms and washing"; and "Extra Assistance, Medical and other." These items include the greater part of the provision made on behalf of the hospitals. They do not include, however, the personal emoluments of the permanent staff. The following figures show the daily average expenditure per patient for 1932:—

Hospital		Average cost per patient daily Cents
Group A—Flacq	... ...	73
Mahebourg	... ...	57
Souillac	... ...	53
Long Mountain	... ...	58
Poudre d'Or	... ...	62
Group B—Victoria	... ...	85
Civil	... ...	75
Moka	... ...	95
Group C—Leper	... ...	58
Mental	... ...	41

The hospitals have been grouped according to the work required of them. The establishments of Group A take medical and simple surgical cases, surgical operative work is restricted as much as possible; patients requiring operative treatment being drafted to the hospitals of Group B. The B Group are general hospitals with a preponderance of surgical wards. Victoria and Moka hospitals have wards for the reception of first class paying patients whose dietary and equipment are more expensive than those of the third class and pauper patients so that the daily average cost per patient is a good deal higher than it is in hospitals of Group A. The C Group comprises the residential institutions. The figures in this group are scarcely comparable because the Mental hospital patient-days amount to over 63,000 whereas those of the Leper hospital number only 4,000.

59. The diet scales are shown in Appendix X.

These figures show that the cost of maintenance of patients is very moderate, and it reflects credit upon those responsible for the careful and efficient management of the institutions under their charge.

VIII.—Dispensary Returns.

60. The dispensaries and hospital out-patient departments were consulted by male patients 122,734 times, and by female patients 109,731 times; total: 232,465.

The number of new cases during the year amounted to 178,784. In 1931, 178,246 new cases were recorded.

In 1931 as an emergency measure, an old motor lorry belonging to the Department was converted into a travelling dispensary which toured part of Pamplemousses District at stated intervals. The work done by the Medical Officers in charge was greatly appreciated by the inhabitants of the area through which the dispensary toured, who would otherwise have been obliged to walk several miles for their medical attention.

On account of the density of population in this area, the travelling dispensary has been maintained throughout the year. By this means 9,412 male cases, and 3,637 female cases were treated with a total of 14,147 consultations for the year.

IX.—Prison Hygiene.

61. An outbreak of dysentery occurred in the Beau Bassin Prison between June and December, 1931. During this outbreak there were 51 mild cases treated as out-patients and 118 severe cases which required hospital treatment. The number of deaths was 10.

For some time there was doubt as to the kind of dysentery occurring. It was eventually established by post-mortem examination that the infection was bacillary, and the laboratory isolated an organism giving the fermentation reactions of *B. dysenterine Y. Hiss-Russell.*

When the nature of the disease was established, a search was made for "carriers" by the naked eye examination of ten successive stools of each prisoner. Out of 281 prisoners, 112 produced stools containing either blood, mucus or mucus and blood. As each carrier was detected he was segregated with the dysentery gang and subjected to treatment until his stools were normal. This measure rapidly brought the outbreak under control.

62. There are two prisons in Mauritius: the Port Louis Prison and the Central Prison Beau Bassin. The Port Louis Prison contains a certain number of long-sentence prisoners, but its chief function is to act as a clearing house for the Central Prison, where most of the long-sentence prisoners are confined. The Port Louis Prison is now used also as a quarantine station. Prisoners who will ultimately serve their term of imprisonment at Beau Bassin are not drafted to the central prison until they have been treated for scabies, ankylostomiasis, malaria, and any other communicable disease from which they happen to be suffering. Ten successive examinations are made of the stools and prisoners showing any abnormality suggestive of latent dysentery are treated until cured of their infection. In this way it is hoped to keep the Beau Bassin Prison free of epidemics of communicable disease. A copy of the new Standing Orders on the subject is printed as Appendix XI.

63. During the year an investigation was made on the prison dietary, as it appeared to the health authorities that the dietary was too low.

X.—Meteorology.

64. The Director of the Observatory has kindly furnished the following table:—

METEOROLOGICAL RETURN FOR THE YEAR 1932.

FROM THE RECORDS OF THE ROYAL ALFRED OBSERVATORY, 178 FT. ABOVE SEA LEVEL.

	TEMPERATURE °C.					HUMIDITY	RAINFALL	WIND		
MONTHS	Mean of daily minima on grass °C.	Mean of daily shade maxima °C.	Mean of daily shade minima °C.	Mean daily range °C.	Mean °C.	Mean Percentage	Amount in inches	Resultant Direction	Mean recorded speed m/s	REMARKS
Jan. ...	21.2	29.7	23.0	6.7	26.0	78.5	7.63	E. N. E.	2.82	
Feb. ...	21.1	29.3	22.9	6.4	25.7	79.6	4.46	E.	3.09	Max. Shade Temp. 32.2° C. Dec. 29
March ...	21.1	29.3	23.0	6.3	25.7	85.5	10.92	E. by N.	2.31	
April ...	19.9	27.2	21.8	5.4	24.1	82.4	13.83	E. S. E.	3.90	Min. Shade Temp. 12.0° C. Aug. 19
May ...	15.6	25.5	18.5	7.0	21.6	76.7	5.80	S.E. by E.	3.12	Max. Gust 25.0 m/s April 10
June ...	13.9	24.0	17.1	6.9	20.3	78.6	7.45	E. S. E.	2.92	
July ...	14.6	23.8	16.8	7.0	20.0	76.8	1.10	E. S. E.	3.25	Max. rainfall in 24 hrs. 3.44 ins. April 3-4
Aug. ...	14.5	24.3	17.1	7.2	20.4	75.4	1.06	E. S. E.	3.42	
Sept. ...	15.7	24.7	18.0	6.7	20.7	72.6	2.32	E. S. E.	4.34	
Oct. ...	12.6	26.1	18.1	8.0	21.7	72.0	1.41	E. S. E.	3.37	
Nov. ...	17.4	28.0	20.1	7.9	23.5	70.8	1.36	E. by S.	3.46	
Dec. ...	18.3	28.6	20.8	7.8	24.4	72.3	1.56	E. by S.	2.90	
Year ...	17.2	26.7	19.8	6.9	22.8	76.8	58.90	E. by S.	3.24	

XI.—General.

65. This report deals only with the Medical and Sanitary work of the Department, but the Medical Officers of all districts excepting Port Louis perform the duties assigned to Poor Law Officers. They are, consequently, responsible for the investigation of claims for poor relief, for the disbursement of doles to paupers in their districts, and for the accounting of whatever moneys they handle. In this work they are assisted by a certain number of the dispensers who act in a clerical capacity and assist also in the enquiry regarding the financial state of applicants. The only merit of this arrangement is that it is a cheap way of providing relief for the destitute. From the administrative point of view it is to be regretted that the time of a professional staff should be absorbed in the performance of duties which require no professional ability for their accomplishment and could, in my opinion, be entrusted to laymen without any loss of efficiency.

66. It is my pleasant duty to thank all members of the Department for their willing co-operation in the work recorded here.

J. BALFOUR KIRK,
Director.

APPENDIX I.

Annual Report of the Bacteriological Laboratory for the Year 1932.

STAFF, 1932.

Pathologist and Superintendent: A. R. D. Adams, M.D., D.T.M.
Acting Analytical Chemist: F. J. R. Momple, M.B., C.M., D.P.H.
Acting Assistant Bacteriologist: L. Masson.
Acting Scientific Assistant: L. Webb.
Laboratory Assistant: R. Avice du Buisson.
Acting Assistant: A. Nemorin.
Acting Junior Microscopist: O. Bechet.
Student and Student-Clerk: A. Furlong.

ADMINISTRATION AND CHANGES IN STAFF.

Dr. F. J. R. Momplé combined the duties of Superintendent, Bacteriologist, and Government Analyst from the beginning of the year until the middle of August when the newly-appointed Pathologist arrived in the Colony on the 12th of that month. Dr. Momplé continued to perform the duties of the Government Analyst until the close of the year.

Dr. A. R. D. Adams commenced duty at the laboratory on August 12th as Pathologist and Superintendent of the laboratory.

Mr. L. Cantin, one of the original six students-in-training, severed his connection with the laboratory on July 1st to take up an appointment in another Department.

No European leave was granted to the staff during the course of the year.

Dr. H. Madge, of the Health Department, spent two half-days a week over a period of three months, towards the later end of the year, in acquiring some knowledge of laboratory technique before proceeding to take up an appointment in Rodrigues.

Owing to the changes in personnel and to the unsettlement consequent on these changes, no original work of an outstanding nature has been initiated. Certain modifications in the bench equipment of the laboratory have been effected which allow of better use of the space in the main laboratory. A plan for the construction of new benches provided with proper laboratory sink equipment, which is entirely absent at the moment, has been submitted and the matter is to be taken in hand as soon as the finances of the Colony will allow. The accomodation for laboratory animals is being repaired and improved, and the stock of animals is being increased by breeding.

Sundry new methods have been incorporated in the routine work of the laboratory from time to time as these became generally accepted in the scientific world. The Khan test has been adopted as the routine procedure for the serological diagnosis of syphilis, in place of the Hecht's modification of the Wassermann reaction which has been in use during preceding years. The routine three-tube test and also the presumptive procedure are performed on every specimen, and the results, since the test was adopted as a routine at the beginning of December, have been gratifyingly consistent. Standard antigen is obtained from a large manufacturer in U.S.A. each quarter, and a small stock is kept in hand. In future T.A.B. vaccine is to be issued as a stock typhoid prophylactic instead of the pure typhoid vaccine which has been issued until recently.

LABORATORY RECEIPTS IN THE FORM OF FEES.

The fees collected at the laboratory for examinations performed at the request of private practitioners, whose clients were capable of paying the statutory scale of fees as laid down in the Ordinance of 1927, amounted to Rs. 3,069.55 cs.; in addition to this the sum of Rs. 1,288.77 cs. was paid direct to the Treasury in laboratory dues, and a further sum of Rs. 1,000 odd has been collected by the Agricultural Department for the sale of bovine B.C.G. vaccine made and issued by this laboratory. Thus the total receipts amounted to the sum of Rs. 4,358.32 cs., plus the profits from the sale of bovine B.C.G., as compared with Rs. 5,614.30 cs. in 1931, and Rs. 6,895.94 cs. in 1930.

This steady decrease in receipts, in spite of the increased amount of work done, may be ascribed to the impoverished position of private individuals as a result of the general slump in trade, and the financial embarrassment of industry in general as a result of the worldwide economic depression during the last few years. At the moment the scale of laboratory charges is being revised and it is hoped that the fees payable for certain of the commoner routine examinations will be brought down to a scale which will enable a larger number of those, unable at the moment to do so, to contribute towards the cost of the procedures involved.

ROUTINE EXAMINATIONS.

During the year 7,650 specimens were received at the laboratory for ordinary routine clinical diagnosis and report. This figure shows a slight increase over that of last year, which was 7,035. The nature of the examinations is indicated by the ensuing subheadings and will be seen to cover a wide field in clinical bacteriology, pathology, protozoology and biochemistry.

I.—Pathological Section.

A.—Routine clinical examinations were performed on the following samples of materials.

(*a*) BLOOD (MICROSCOPICAL).

Counts of red and white cells and estimation of haemoglobin		...	4
Differential leucocyte counts	... ...	...	41
Films for malaria parasites			
Plasmodium vivax	found in	40	specimens.
Plasmodium falciparum	,,	17	,,
Plasmodium malariae	,,	1	,,
Multiple infections	,,	0	,,
Undetermined malaria parasites ...	,,	1	,,
Negative		111	,,
Total examined		170	
Films for microfilariae			
Wuchereria bancrofti	found in	7	specimens.
Negative		32	,,
Total examined		39	,,

One film for *Spirillum minus*—negative.

(*b*) Faeces (Microscopical).

Total number examined, 893.

Helminths:

Trichuris ova	...	...	...	found in 411 specimens.
" Hookworm " ova	...	...	...	,, 184 ,,
Ascaris ova	...	...	...	,, 130 ,,
Clonorchis ova	...	...	...	,, 5 ,,
Enterobius ova	...	...	...	,, 3 ,,
Heterodera radicicola ova		...	...	,, 3 ,,
Cestode ova	...	...	...	,, 0 ,,
Strongyle larvae	...	...	...	,, 31 ,,

Protozoa:

Entamoeba histolytica		...	...	,, 48 ,,
Entamoeba coli	...	...	...	,, 62 ,,
Endolimax nana	...	...	...	,, 10 ,,
Trichomonas hominis		...	...	,, 26 ,,
Giardia intestinalis	...	...	...	,, 33 ,,
Chilomastix mesnili	...	...	...	,, 3 ,,
Cercomonas sp.	...	...	...	,, 1 ,,
Blastocystis hominis	...	...	...	,, 146 ,,
No helminths or protozal parasites			...	,, 261 ,,

(*c*) Urine (Clinical Qualitative).

Ordinary full clinical qualitative analysis performed on 619 specimens.

Qualitative tests for acetone	...	...	,,	31 ,,
,, ,, biliary pigments		...	,,	2 ,,
,, ,, urobilin	...	...	,,	2 ,,
,, ,, indican	...	...	,,	1 ,,
Ehrlich's diazo reaction	...	...	,,	1 ,,

Microscopical examination of centrifuged deposits revealed the presence of:—

Hyaline casts	...	...	...	in 46 specimens.
Granular casts	...	...	...	26 ,,
Leucocytic casts	...	...	...	7 ,,
Cellular casts	...	...	...	5 ,,
Blood cell casts	...	...	...	2 ,,
Waxy casts ...	...	...	...	1 ,,
Mucoid casts ...	...	...	...	1 ,,
Schistosoma haematobium ova		...	...	33 ,,
Microfilariae ...	...	...	...	1 ,,

(*d*) Sputum (Microscopical).

Total number of specimens received, 470.

Mycob. tuberculosis	...	...	...	found in 79 specimens.
Pneumococci	...	...	...	,, 3 ,,
Streptococci ...	...	...	...	,, 2 ,,
Spirochaetes ...	...	...	...	,, 2 ,,

(*e*) Cerebro-spinal Fluid.

Total number of specimens examined, 44.

Leucocyte counts	...	...	...	performed on 17 specimens.
Differential leucocyte counts		...	...	,, 6 ,,
Nonne-Apelt test for globulin		...	...	,, 15 ,,
Quantitative estimation of albumin...			...	,, 1 ,,
Gram-negative bacilli ...		...	...	found in 2 ,,

(*f*) THROAT AND NASAL SWABBINGS (MICROSCOPICAL).

Total number of specimens examined, 148.

Corynebact. diphtheriae	found in	19	specimens.
Vincent's fusiform organisms	,,	10	,,
Streptococci	,,	9	,,
Pneumococci	,,	2	,,
Spirochaetes	,,	2	,,
Leptothrix	,,	2	,,
Hoffmann's bacillus	,,	1	,,
Staphylococci	,,	1	,,

(*g*) PUS, DISCHARGES, SCRAPINGS, ETC. (MICROSCOPICAL).

Total number of specimens received, 102.

Staphylococci	found in	10	specimens.
Streptococci	,,	3	,,
Pneumococci	,,	3	,,
Gonococci	,,	14	,,
Treponemata	,,	1	,,
Unidentified Gram-negative bacilli ...	,,	1	,,
Unidentified sporulating organisms ...	,,	1	,,
Corynebact. xerosis and staphylococci from eye secretion	,,	1	,,

B.—Histological examination was made of 37 specimens of material from tissues and tumours. The following were the findings in 33 of the specimens, the remaining 4 being normal tissues.

(*a*) NEOPLASTIC TUMOURS.

Carcinomata.		
Bladder, ovary, and jaw	3	specimens.
Scirrhus of breast	3	,,
Medullary of breast	1	,,
Columnar celled of rectum	1	,,
Epitheliomata of cervix uteri and of glans penis ...	2	,,
Sarcomata.		
Breast	1	,,
Lyphosarcoma of axillary glands	1	,,
	12	

(*b*) BENIGN TUMOURS.

Inflammatory conditions of large intestine, anus, and of lymphatic glands	3	specimens.
Acute inflammation of vermiform appendix	3	,,
Schistosomal inflammation of vermiform appendix ...	1	,,
Acute pneumonia	1	,,
Acute yellow atrophy of liver	1	,,
Tubercle of lung and of peritoneum	2	,,
Granulomatous ulcer of finger	1	,,
Fibroma of scalp	1	,,
Fibromyomata of uterus	1	,,
Chronic endometritis	3	,,
Cystadenomata of ovary and of breast	2	,,
Papilloma of eyelid	1	,,
Papilloma of glans penis of Bilharzial origin	1	,,
	21	

II.—Bacteriological Section.

A.—Cultural examinations for the determination of the presence and type of pathogenic micro-organisms were made on 1,055 samples of material as follows:—

(*a*) Blood.

Total number of specimens, 54.

Bact. typhosum	recovered from	7	specimens.
Staphylococci	,,	6	,,
Streptococci	,,	3	,,
B. icteroides	,,	2	,,
Staphylococci and streptococci	,,	1	,,
Pneumococci	,,	1	,,
No organisms were recovered from a further ...		34	,,

(*b*) Faeces.

Total number of specimens, 68.

Bact. shigae	recovered from	5	specimens.
Bact. dispar	,,	1	,,
Bact. morgani	,,	2	,,

(*c*) Urine.

Total number of specimens, 153.

Bact. coli commune	recovered from	18	specimens.
Bact. coli communior	,,	10	,,
Bact. cloacae	,,	5	,,
Bact. acidi lactici	,,	5	,,
Ps. pyocyanea	,,	4	,,
Staphylococci	,,	5	,,
Streptococci	,,	2	,,
Bact. asiaticum	,,	3	,,
Bact. aertrycke	,,	2	,,
Bact. aerogenes	,,	2	,,
Bact. kandiensis	,,	1	,,
Bact. para-asiaticum	,,	1	,,
Bact. coli commune and *Bact. para-coagulans* ...	,,	1	,,
Bact. coli communior and *Bact. aertrycke* ...	,,	1	,,
Streptococci and *Bact. coli commune* ...	,,	1	,,
Streptococci and *Ps. pyocyanea*	,,	1	,,
No organisms were recovered from a further ...		91	,,

(*d*) Sputum.

Total number of specimens, 10.

Streptococci	recovered from	3	specimens.
Streptococci and staphylococci	,,	2	,,
Streptococci and *Neisseria catarrhalis* ...	,,	1	,,
Streptococci and *Ps. pyocyanea*	,,	1	,,
Streptococci and *Micrococcus tetragenus* ...	,,	1	,,
Neisseria catarrhalis	,,	1	,,
Streptococci, pneumococci, and *Neisseria catarrhalis*	,,	1	,,

(*e*) Cerebro-Spinal Fluid.

Total number of specimens, 5.

Streptococci	recovered from	2	specimens.
Pneumococci	,,	1	,,
No organisms	,,	2	,,

(*f*) THROAT AND NASAL SWABBINGS.

Total number of specimens, 662.

Corynebact. diphtheriae ...	...recovered from	131 specimens.
Streptococci	,,	3 ,,
Streptococci and staphylococci	,,	3 ,,
Staphylococci	,,	1 ,,
Oidium albicans	,,	1 ,,

(*g*) PUS, DISCHARGES, SCRAPINGS, ETC.

Total number of specimens, 103.

Staphylococci	... recovered from	42 specimens.
Streptococci	,,	10 ,,
Staphylococci and streptococci	,,	5 ,,
Neisseria gonorrhoeae	,,	1 ,,
Pneumococci	,,	3 ,,
Diphtheroid bacilli	,,	1 ,,
N. gonorrhoeae and staphylococci ...	,,	4 ,,
Staphylococci and diphtheroid bacilli ...	,,	2 ,,
Unidentified sporulating bacilli	,,	1 ,,

B.—Autogenous vaccines. The following autogenous vaccines were prepared from organisms isolated from material sent to the laboratory. A total of 110 autogenous vaccines were made in the course of the year from:—

(*a*) BLOOD.

Total vaccines prepared, 4.

Bact. typhosum	from 3 specimens.
Streptococcus haemolyticus	,, 1 ,,

(*b*) SPUTUM.

Total vaccines prepared, 10.

Streptococcus	from 3 specimens.
Mixed streptococcus and staphylococcus ...	,, 2 ,,
,, streptococcus and *N. catarrhalis* ...	,, 1 ,,
,, streptococcus and *Ps. pyocyanea* ...	,, 1 ,,
,, streptococcus and *M. tetragenus* ...	,, 1 ,,
,, streptococcus, pneumococcus and *N. catarrhalis*	,, 1 ,,
Neisseria catarrhalis	,, 1 ,,

(*c*) URINE.

Total vaccines prepared, 36.

Bact. coli commune	from 15 specimens.
Bact. coli communior	,, 5 ,,
Bact. acidi lactici	,, 4 ,,
Ps. pyocyanea	,, 3 ,,
Bact. cloacae	,, 2 ,,
Bact. para-asiaticum	,, 2 ,,
Bact. aertrycke	,, 2 ,,
Bact. coli commune and *Bact. aertrycke* ...	,, 1 ,,
Bact. coli commune and *Bact. para-coagulans*	,, 1 ,,
Streptococcus	,, 1 ,,

(*d*) FAECES.

Total vaccines prepared, 1.

Bact. coli commune and *Bact. aertrycke* ...	from 1 specimen.

(*e*) PUS, DISCHARGES, SCRAPINGS, ETC.

Total vaccines prepared, 59.

Staphylococcus	from 43	specimens.
Streptococcus	,, 7	,,
Mixed streptococcus and staphylococcus ...	,, 5	,,
Mixed *N. gonorrhoeae* and staphylococcus ...	,, 4	,,

C.—Stock vaccines. In addition to the above autogenous vaccines many doses of stock vaccines were prepared and issued. These comprised the following preparations:—

Typhoid vaccine for prophylaxis	814	doses.
Typhoid vaccine for protein shock therapy ...	26	,,
Edo dysentery vaccine	1,632	,,
B.C.G. (human)	1,714	,,
B.C.G. (bovine) (to the Dept. of Agriculture) ...	1,498	,,
Besredka's antivirus from mixed staphylococci ...	23	litres.
Besredka's antivirus from mixed streptococci ...	17	,,

D.—Serological examinations for agglutination, complement deviation tests, specific tests for Syphilis and allied tests.

The following results were obtained with 3,532 specimens of serum and cerebro-spinal fluid submitted for examination by serological tests:—

(*a*) BLOOD SERUM.

Hecht's Wassermann's reaction.

Negative	in 1,177	samples.
Weakly positive	in 163	,,
Positive	in 435	,,
No haemolytic power	159	,,
	1,934	

Kahn test.

Negative	in 103	samples.
Doubtful	in 9	,,
+	in 44	,,
+ + ...	in 41	,,
+ + + ...	in 44	,,
+ + + + ...	in 32	,,
Unsuitable for test	4	,,
	277	

Agglutination Tests.

Positive for *Bact. typhosum*	76	specimens.
Negative for *Bact. typhosum*	209	,,
Negative for *Bact. para-typhosum* A	6	,,
Negative for *Bact. para-typhosum* B	5	,,
Negative for Proteus X 19	1	,,
Negative for *Bact. shigae*	6	,,
Negative for *Bact. morgani*	2	,,
	305	

(*b*) CEREBRO-SPINAL FLUID.

Modified Wassermann reaction.				
Negative	... ...	... in	5	samples.
Weakly positive	... ...	... in	2	,,
Positive	... ...	... in	6	,,
			13	
Kahn test.				
Negative	... ...	... in	1	sample.
Positive	... ...	... in	2	samples.
			3	

E.—Water examinations. The usual weekly examinations of the Port Louis water supply and of the chlorination plant at Pailles were continued, and also a monthly examination of the plant at Mare-aux-Vacoas was made. Several other samples of water from various sources were bacteriologically and chemically examined during the year, and in addition an investigation as to the efficiency of individual filters of the Mare-aux-Vacoas supply was commenced.

III.—Bio-Chemical Section.

Qualitative or quantitative examinations were made on the following 726 specimens:—

(*a*) BLOOD.

Van den Bergh reaction	... ...	... on 4	specimens.
Quantitative estimation of urea	...	... on 511	,,
Quantitative estimation of chlorides	...	... on 25	,,
Quantitative estimation of glucose	...	... on 17	,,
		557	

(*b*) URINE.

Quantitative estimation of sugar	... ...	... on 117	specimens.
Quantitative estimation of albumen	...	... on 29	,,
Quantitative estimation of urea	... ...	... on 13	,,
Quantitative estimation of uric acid	...	... on 1	,,
Quantitative estimation of total nitrogen	...	... on 1	,,
Quantitative estimation of urea nitrogen	...	... on 1	,,
		162	

(*c*) FAECES.

Quantitative estimations of total fats, split, and unsplit fats		on 3	specimens.
Test for occult blood	... ...	... on 2	,,

(*d*) HUMAN MILK.

Chemical analysis of a single specimen.

(*e*) GASTRIC CONTENTS.

Estimation of free and combined HCl in a single case.

IV.—Miscellaneous.

A number of interesting specimens were received during the latter half of the year and in addition the pathologist was afforded an opportunity of seeing some cases presenting unusual features, by courtesy of the medical practitioners treating them. A brief résumé of some of the more interesting material is herewith given.

1. *Vermiform appendix.*—This specimen was removed by a surgeon who diagnosed it macroscopically as being tuberculous. On arrival at the Laboratory the naked eye appearance suggested numerous miliary tubercles, and on section the histology to a considerable extent supported this; but numerous *Schistosoma haematobium* ova were seen to be the cause of the condition on further examination. No clinical evidence of Schistosomal infection had been observed in the patient.

2. *Cervix uteri.*—This specimen had been sent for examination after amputation, and on histological examination was found to be extensively epitheliomatous and to contain numerous ova of *S. haematobium*. The patient was treated with tartar emetic and when seen recently, 14 months after treatment, was apparently perfectly healthy, and no evidence of malignancy could be detected.

3. *Bilharzia.*—Two specimens of post mortem material, fixed in formalin, from old cases of Bilharzia were kindly submitted for examination by Dr. André. The first consisted of omentum, and the second of omentum and bladder. The material was carefully and thoroughly dissected but no specimens of the adult worms were recovered.

4. *Plasmodium tenue.*—Blood slides sent in for examination for suspected malaria when studied were found to be heavily infected with parasites corresponding to *P. tenue*, Stephens 1914. By courtesy of the physician attending the case, Dr. E. Duvivier, no specific treatment was given for three days and films were made twice daily over that period. The *tenue* forms persisted throughout, but the proportion present became progressively less on the second and third days, normal ring forms of, apparently, *P. falciparum* eventually greatly predominating. The patient made the usual rapid recovery with quinine treatment.

5. *Dysentery.*—Several outbreaks of dysentery with unusually high mortality occurred in the island during 1932. In early September, towards the end of an outbreak at Souillac, stools were examined at the hospital there and presented the cytological characters of bacillary dysentery. Culture of specimens from three cases, each on a single occasion, resulted in the isolation of *Bact. morgani* from two of the cases. No other member of the dysentery group was found. A month later a case was seen at Victoria Hospital within 24 hours of the onset of acute symptoms and on culture an almost pure growth of *Bact. shigae* was obtained. Subsequently *Bact. shigae* was isolated from three other cases in the ensuing two months.

6. *Steatorrhoea.*—A case of Sprue-like condition was studied in December and full analyses of the fat content of the stools and examinations of the blood picture, cell counts, Van den Bergh reactions, etc., were performed. While hardly typical Sprue, which apparently has never been recorded in Mauritius,

this case, but for the presence of sore tongue and mouth, closely resembled the characteristic clinical picture of that disease. Investigations are being continued and a suitable diet has been submitted as a suggested line of treatment.

7. *T. evansi.*—By courtesy of the Government Veterinary Surgeon, Mr. Lionnet, a strain of *T. evansi* was obtained from an infected horse in the Flacq area, and is now being maintained at the laboratory for investigation and with a view to experimental work later on as the opportunity arises.

8. *Fasciolopsis buski.*—Two consignments of water chestnuts (*Eliocharis tuberosa*) were received at Port Louis from China, to Chinese consignees in this country. In view of the fact that these plants have been shown frequently to harbour the cercariae of *F. buski,* a quantity were fed to young pigs to determine whether, possibly, infection was present and had survived the voyage. No infection of the pigs resulted.

9. *General.*—Some samples of blown tinned cheeses, and also of suspected soda-water, were examined for their bacterial flora. No pathogenic organisms were found.

The Rideal-Walker coefficients of two samples of disinfectant, locally made, were determined. Neither compound proved of any great disinfectant value.

Ten examinations, for sterility, of catgut supplied to one of the large hospitals were also made.

V.—Research.

As already stated the opportunity for original work during 1932 has been small, owing to changes in staff; and the small staff available have been fully occupied with the normal routine of a general laboratory.

(*a*) *Abortion in cattle.*—In the Report for 1931 attention has been drawn to an outbreak of abortion in cattle at the Government Dairy in which a streptococcus was isolated as being probably the causative organism. Early in 1932 four further foetuses were examined and from two of these a similar streptococcus was isolated. Again no evidence of infection with *Brucella abortus* or *Vibrio foetus* was found. Preparation of antivirus with the recovered organisms was continued, and a large quantity was supplied to the Government Veterinary Surgeon for routine usage. The abortion rate fell greatly shortly after this measure was introduced, and continued at a very low level till the end of the year.

(*b*) *Bilharzia.*—Some initial work was undertaken in a re-investigation of the molluscan host of *Schistosoma haematobium.* Field work consisted of the collection of a representative series of fresh-water molluscs from various streams in the island. This collection has been sent to England for identification and the return of type specimens.

In addition some preliminary laboratory work was done to determine the molluscan host most attractive to the free-swimming miracidia. It was observed that the miracidia attacked any one of half a dozen species of molluscs with apparently equal avidity, but in spite of prolonged periods of watching in no case was successful penetration actually into the mollusc observed. Attempts to infect *Limnaea mauritiana, Physa borbonica, Melania tuberculata, M. scabra* and *Paludina zonata* were unsuccessful in the tentative experiments performed, but it is proposed to conduct these on a more extensive scale when opportunity presents itself; up to the present about 200 snails of each species collected have been exposed to infection with living miracidia, but on dissection after a period of three weeks no evidence of infestation with furcocercous cercariae was obtained.

A.—PUBLIC HEALTH.

The following substances were analysed:—

Milk	399 samples.
Oil	4 ,,
Salt (Ammon. sulphate) ...	4 ,,
Fabrics	2 ,,
Disinfectant	1 ,,
Butter	1 ,,
Aether	1 ,,
Beeswax	1 ,,
Cider	1 ,,
Liquor	1 ,,
Water	1 ,,

B.—MEDICO-LEGAL.

The articles of evidence, organs, substances, etc., referred for examination by the Judicial Authorities at the request of the Police and Revenue Departments amounted to 253.

The following are the figures for the last 5 years:—

1928	330 articles.
1929	307 ,,
1930	314 ,,
1931	396 ,,
1932	253 ,,

The examinations were called for in connection with the following offences:—

Illicit distillation	...	101	articles	in 42	cases.
Rape ...	...	79	,,	13	,,
Poisoning	...	21	,,	4	,,
Possession of Gandia	...	15	,,	9	,,
Possession of Opium	...	11	,,	2	,,
Murder ...	...	9	,,	2	,,
Poisoning of dog	...	6	,,	1	,,
Attempt on chastity	...	4	,,	1	,,
Wounds and blows	...	3	,,	1	,,
Suicide ...	...	3	,,	1	,,
Bestiality	...	1	,,	1	,,

F. J. R. MOMPLE,
Acting Government Analyst.

June 13th, 1933.

CONCLUSION.

In conclusion it is my pleasant duty to thank all the members of the staff of this institution for their unfailing willingness and co-operation since I have been responsible for the management of the laboratory. In the coming year any opportunity of carrying out a number of interesting investigations, of fundamental importance to the benefit of the public health of the colony, that may present itself will be seized, and it is hoped that results of value both to the Medical Department and to the public will accrue. New problems are continually arising and must be dealt with as they occur, but steady enquiry into a number of the older problems, yet unsolved, should eventually yield information of a cumulative nature which, in the long run, should assist their solution.

A. R. D. ADAMS,
Pathologist.

June 20th, 1933.

APPENDIX II.

Annual Report of the Hookworm Branch for the Year 1932

1. ORGANISATION AND STAFF.

No change to be recorded.

On October 1st the Central Office was transferred into the new building specially constructed by the Board of Curepipe.

2. EXTENT OF OPERATIONS.

The activities of the Branch have been concentrated on three districts: Grand Port, Savanne, and Plaines Wilhems, but treatment was, on special request, also given in Moka.

Propaganda work has been carried out throughout the year, and the total number of treatments given, 52,663, stands as a most gratifying result.

The statistical table, annexed, shows the details of the work done. It will be noted that:

(i) only 16% of the persons treated have been previously examined. This is due to the fact that the rate of infection among the labouring (barefooted) classes having been carefully ascertained during five consecutive years and found to be about 85%, it was considered unnecessary to insist on preliminary examination, all the more that the said classes are:

a. constantly exposed to reinfection;

b. adverse to the handling of the required specimen.

(ii) Re-examination was carried out in selected cases and only to check the effect of treatment. This, for very much the same reasons as given above.

3. MICROSCOPICAL EXAMINATION.

The Willis-Salt flotation method was employed throughout the year.

Apart from Hookworm, most of the people examined were found to harbour both Ascaris and Trichocephalus.

4. TREATMENT.

No change to be recorded.

As a routine measure Oil of Chenopodium is used for the first treatment and Tetrachloride of Carbon for the subsequent ones.

5. REMARKS.

It is now ten years since the Hookworm campaign has been originated under the auspices and with the co-operation of the International Health Board, and a review of the situation may not be out of place.

In 1921 a night-soil service existed only in townships and a number of " declared " villages, also, to a certain extent, on sugar estates.

As a preliminary measure, therefore, it was decided to soil sanitate each of the eight rural districts, and legislation was passed to the effect that " every house or hut shall be provided with a latrine."

This was the easiest part of the task, and when the population had complied with the law, it had to be realised that a mere stroke of the pen could not eradicate racial habits and make a whole population turn over a new leaf in matters sanitary.

The next step was a campaign both educational and curative, started and carried out by one itinerating unit.

To dwell on the part and detail the difficulties encountered would be beyond the scope of this report.

The annexed graph shows, at a glance, that after some hesitation, the population has found what benefit could be derived from treatment.

Unfortunately the same success cannot be claimed as regards the prophylactic part of the campaign, and generations will undoubtedly pass before soil sanitation plays its full and all-important part in the fight against the disease.

To those who have been familiar with the Colony for the last 40 years, the physical degeneration of the labouring classes is manifest as, also, is the earning power of the individual.

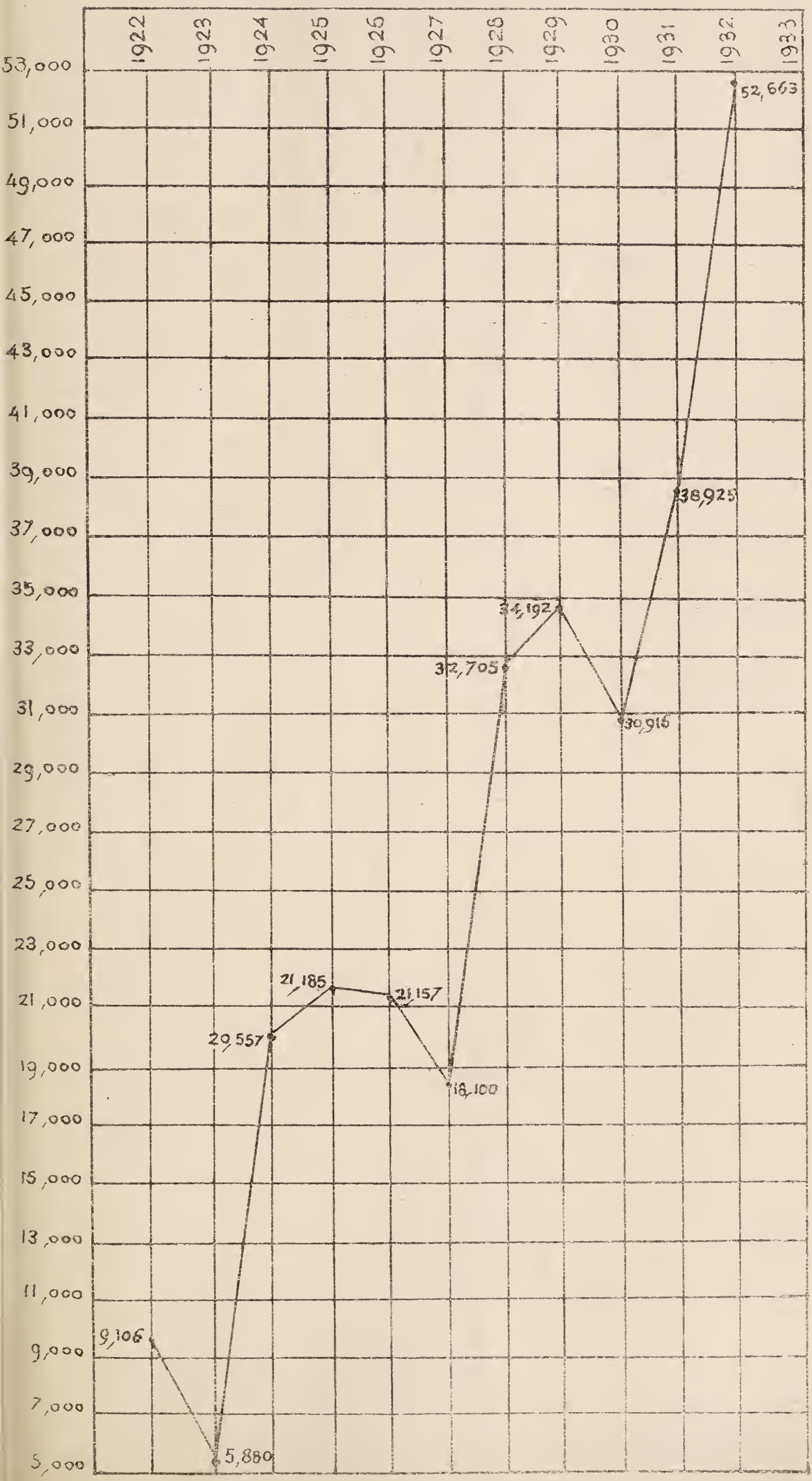
That Hookworm disease is chiefly responsible for such a state of affairs is evidenced by the fact that it prevails almost to the same extent on the higher plateau where Malaria has not yet told its tale.

It cannot be too strongly emphasized that every effort must be made to control Ankylostomiasis, and that such control can only be achieved through mass treatment.

For that purpose one unit is manifestly insufficient, it is imperative that the present organisation be reinforced by two other units so that each district is visited at least twice a year.

A. C. L. D'ARIFAT,
Medical Officer in charge of Hookworm Branch.

Graphical Progression of Hookworm Treatments (1922-1932)



HOOKWORM CAMPAIGN WORK FOR THE YEAR 1932.

	CLASSIFICATION BY AGE																				
		0-5		6-10		11-20		21-30		31-40		41-50		51-60		over 60		Total			
	Census	Examined	Infected	Examined	Infected	Examined	Infected	Examined	Infected	Examined	Infected	Examined	Infected	Examined	Infected	Examined	Infected	Examined	Infected	Examined	Infected	% Infection
Central Dispensary ...	7,148	702	123	597	256	497	254	376	168	293	137	148	75	87	45	29	16	2,729	1,074	39.3
Plaines Wilhems ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Savanne	5,000	379	260	1,195	878	686	522	305	228	214	154	142	106	127	95	39	27	3,087	2,270	73.4
Grand Port ...	6,654	427	246	1,455	1,003	820	635	386	329	324	275	199	165	118	89	60	40	3,789	2,782	73.5
Total ...	18,802	1,508	629	3,247	2,137	2,003	1,411	1,067	725	831	566	489	346	332	229	128	83	9,605	6,126	63.7

	CLASSIFICATION BY RACE								OTHER HELMINTHS					TREATMENTS					RE-EXAMINATION AFTER TREATMENT									
	Mixed		Indian		Chinese		White												1		2		3		4		Total	
	Examined	Infected	Examined	Infected	Examined	Infected	Examined	Infected	Ascaris	Tricho	Strongy	Oxyuris	Taenia	First	Second	Third	Fourth	Total	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
Central Dispensary ..	1,126	307	1,249	722	27	4	327	41	1,106	997	4	31	2	5,300	2,555	925	649	9,429	79	28	48	24	13	6	29	105	169	163
Pl. Wilhems ...	...	...	...	...	...	...	...	...	...	...	...	...	...	8,427	1,416	58	7	9,908	...	...	...	...	...	...	...	...	...	...
Savanne ...	651	428	2,410	1,825	26	17	...	...	1.003	278	5	6	11	13,893	5,164	1,557	560	21,174	...	...	...	...	...	...	...	...	...	...
Grand Port ...	983	599	2,790	2,177	16	6	...	...	1,674	358	1	7	1	9,289	2,354	491	18	12,152	...	13	...	...	...	...	...	...	...	13
Total ...	2,760	1,334	6,449	4,724	69	27	327	41	3,783	1,633	10	44	14	36,909	11,489	3,031	1,234	52,663	79	41	48	24	13	6	29	105	169	176

APPENDIX III.

Annual Report of the Malaria Branch for the Year 1932.

ORGANISATION AND STAFF.

No change to be recorded.

Anti-Malaria Works:

(I) Maintenance.

Has been satisfactorily attended to.

(II) Improvements.

a. Clairfond drain has been widened and regraded on 970 feet.

b. Victor drain has been regraded and also provided with rough side walls on 570 feet.

c. River Profonde, at a place a little below Chantenay, had been almost completely obstructed with boulders carried down during the flood in 1931.

The bed of the river has been cleared and the bank's side walled on a length of 200 feet.

(III) New Works.

a. In rivers Cascade and Moka, the work undertaken last year has been completed.

b. At La Source, a drain 100′ × 2′ × 3′ has been cut in order to empty and drain a hollow where rain water accumulated and stagnated for weeks.

c. La Louise has received very careful attention.

The drain of the same name has been slightly deviated, widened, deepened 3′ and regraded on a length of 3,132 feet.

Two bridges had to be reconstructed.

This work has made possible the drainage of all the low-lying land between La Louise and Quatre Bornes and has materially improved sanitary conditions in the locality.

INVESTIGATORY.

An attempt has been made to obtain some idea of the incidence of malaria in the district of Plaines Wilhems.

To that effect, apart from the cases investigated at the Central Office, a number of schools and villages have been visited and a blood specimen taken from any volunteer.

The results are as follows: Number examined, 2,665; Number positive, 1,121.

Being given local conditions both physical and psychological, it is impossible in such a survey to determine the number of indigenous cases.

There is no doubt that the vast majority of the persons found infected contracted the disease during some short visit on the coasts; but the outstanding fact is that we have now in Plaines Wilhems a fairly large reservoir of parasites while the distribution of *A. costalis* is widespread over the district, especially during the summer months.

The work performed by the Branch during the last two years has demonstrated:

(i) that Anopheles were constantly being imported into the district through vehicles (especially motor cars) coming from the coast;

(ii) that the breeding-places detected along the main roads and elsewhere are chiefly man made.

The none too pessimistic conclusion which can be drawn from these observations and facts is that the Sanatorium of the Island is seriously threatened with an epidemic of malaria which may burst out at any moment; also that the disease is insidiously establishing itself in the district.

In the writer's opinion, nothing short of systematic work coupled with drastic measures against offenders, can prevent Plaines Wilhems from becoming an endemic focus of malaria.

Suggestions to that effect have been submitted to Government.

A. C. L. D'ARIFAT,
Medical Officer in charge of Malaria Branch.

APPENDIX IV.

Annual Report of the Medical Officer of Health, Port Louis, for the Year 1932.

ADMINISTRATION.

The Sanitary Staff which was composed last year of a Chief Sanitary Inspector, four Inspectors and three Guards, was reduced to three Inspectors and two Guards. After the retirement on pension of Mr. Leonce on the 30th December, 1931, the post of Chief Sanitary Inspector remained vacant until the end of the financial year 1931-1932, when it was finally abolished.

PUBLIC HEALTH.

No epidemics were recorded during the year.

In order to control the incidence of bacillary dysentery which appeared to be on the increase in the Colony, a Regulation was published on the 19th November, declaring the disease notifiable until the 28th February, 1933. Thirteen cases, two of which were fatal, were notified; one case came from Pailles in the district of Moka.

On the 22nd of November, tuberculosis ceased to be notifiable by the enactment of Ordinance No. 36 of 1932.

VITAL STATISTICS.

The area of Port Louis is about sixteen square miles. The estimated population was 54,290 on the 1st of January, 1932, and 54,143 on the 31st of December. The estimated population on the same dates in 1931 was 54,877 and 54,290

Births.

In 1931:	
Total	1,802
Birth-Rate per 1,000 of population ...	32.8
Still Births	185
In 1932:	
Total	1,586
Birth-Rate per 1,000 of population	29.2
Still Births	137

Deaths.

In 1931:	
Intra Urban	1,735
Extra Urban	362
Total	2,097
Crude Death-Rate per 1,000 of population ...	38.5
In 1932:	
Intra Urban	1,520
Extra-Urban	308
Total	1,828
Crude Death-Rate per 1,000 of population ...	33.6

Infantile Mortality.

In 1931:	
Under one year	348
Between the age of one and five	244
Infantile mortality rate per 1,000	193

In 1932:

Under one year	251
Between the age of one and five	195
Infantile mortality rate per 1,000	160

Year ...	1925	1926	1927	1928	1929	1930	1931	1932
Crude Death-rate ...	26.1	28	27.7	32.1	35	43.3	38.5	33.6
Birth-rate ...	42	39.5	36	38.4	35.6	35.5	32.8	29.2

COMMUNICABLE DISEASES.

MALARIA.

The number of reported deaths from Malaria and Malarial Cachexia was 239 as against 323 in 1931, a decrease of 84.

The total number of patients treated at the Civil Hospital was 1,156, a decrease of 285 on the figure for the previous year.

The case mortality was 4.4% for 1932, and 3.46% for 1931.

PLAGUE.

No sign of plague, whether in man or rat, has been detected since 1927.

FILARIASIS.

Eighteen cases were diagnosed at the Civil Hospital and Government Dispensaries.

INFECTIOUS DISEASES.

DISEASES	CASES
Diphtheria	3
Enteric fever	8
Erysipelas	10
Puerperal Sepsis	7
Puerperal fever	1
Tuberculosis	118
Dysentery	12

As stated above, Tuberculosis ceased to be notifiable on the 22nd November, while Dysentery was declared a contagious or infectious disease on the 19th November.

HYGIENE AND SANITATION.

PLAGUE.

(a) Rat-proofing: 188 dwellings, 7 shops and 3 storehouses were made rat-proof.

(b) Rat Surveillance: Sanitary surveillance over the rodent population in the docks and the town area around these was pursued throughout the year. The rats caught or found dead are examined microscopically.

Rats caught	12,395
Flea rate per rat	2.59
Gravid female rats caught	500
Number of young recovered ...	2,097
Fecundity index	4.21
Cats found dead	2

(c) *Port Sanitary Measures*: On the arrival of healthy vessels from plague-infected ports, the luggage of passengers are disinfected at the Harbour Disinfecting Station, and all cargo, except flour, fumigated by means of the Clayton apparatus in the ship's holds prior to unloading.

(d) Rat-proof Granary: The Granary was completed in January, 1932.

On the 2nd of February a Bill was read a first time at a meeting of the Council of Government " to provide for the fumigation, disinfection and landing of certain grain and the storing thereof."

Article 5 of the Bill provides that the grain shall be removed for storage direct from the lighters into the granary, while Article 6 forbids the storing of

more than twenty bags of grain at a time on any premises other than the granary.

MALARIA.

The chief source of Malaria in Port Louis are the streams which run from the hills to the sea, crossing the town on their way.

Intra-Urban Area: Anopheline breeding places are practically restricted to those portions of the streams where the masonry was carried away by the flood of 1929; all efforts were therefore concentrated on those portions.

Thorough repairs were out of the question, as the funds available were not sufficient; but considerable improvement was achieved by rough canalisation and filling up of the pools without extra cost to Government.

Unfortunately, the work done is destroyed by any shower of moderate severity which converts the streams into torrents with the result that the channels are again blocked, pools formed, water stagnates and mosquitoes breed.

An attempt was made, however, to prevent the larvae from reaching the adult stage by starting the necessary repairs immediately after the rains and concentrating the cantonniers of the extra- and intra-urban areas on the work.

The result was very gratifying and the incidence of malaria in the town certainly came down; as stated before, the number of cases of malaria treated at the Civil Hospital was 1,156 as compared with 1,441 for the previous year.

Extra-Urban Area: Here, the streams and the circumvallatory catch water drain afford ideal breeding places.

The task of canalising and cleaning has been started, but, as no extra expenditure can be incurred, it is necessarily very gradual.

Apart from the streams, anopheline breeding places are rare in the town and larvae are only found in the pools of clear stagnant water caused by broken and leaky water pipes, these are repaired as soon as possible by the Public Works Department.

The number of breeding places treated during the year in the District of Port Louis is as follows:

Anophelini:	
A. costalis	1,800
A. maculipalpis	15
A. funestus	1
A. mauritianus	1
Culicini:	
Stegomyia	—
Culex	784
Lutzia tigripis	6

QUININISATION.

From the 4th February to the 5th May, 1932, 145,000 grains of Totaquina were issued to the Municipal Corporation for distribution at 14 centres in the town.

GENERAL MEASURES OF SANITATION.

NIGHT SOIL AND CONSERVANCY SYSTEM.

Sewerage System: 323 more premises were connected with the sewerage system, this leading to the abolition of 378 pail services.

Pail Latrines: At the end of the year there were still 1,413 pail services in the urban area, and 124 in the extra-urban area.

The night soil is collected in special motor lorries supplied by a Contractor and disposed of at the Cassis and Paul and Virginie tipping chambers.

Pit Latrines: In Cassis, Roche Bois, and Ste. Croix, pit latrines are made use of for the disposal of excreta.

COLLECTION AND DISPOSAL OF REFUSE.

This work, performed by the Sanitary Department, was satisfactory. The refuse is collected daily in motor lorries belonging to Government and is used for the filling in of quarries at Roche Bois and Plaine Lauzun.

The staff consists of one Dump Overseer, seven Sectional Overseers, and 143 labourers.

WATER SUPPLY.

There are four sources of water supply in Port Louis:

1. Grand River North West: At a dam called " La Digue " where the water is conveyed by two water mains, known as the Municipal (18-inch. pipe) and Rectification (19-inch pipe) canals to the Pailles filter-beds. The filtered water is then chlorinated by means of Paterson's chloronome and stored in the Monneron and Signal Mountain reservoirs. This chlorinated water supply is limited to the intra-urban area and is supplied to shipping.
2. Grand River North West: At a spot nearer to the sea than " La Digue " where Dayot Canal starts. This supplies water to the Cassis District and ends at Redoute Street. The remaining portion up to Pouce Street is dry.
3. Calebasses River: The water impounded by a dam near Bois Marchand Cemetery is brought to the Abattoir, Ste Croix, Terre Rouge, and part of Roche Bois.
4. Latanniers Stream: Water is supplied to Vallée des Prêtres by a pipe which is fed from a dam close to the river source.
5. Mare-aux-Vacoas: This water supply reaches Port Louis through an eight-inch diameter piping from a reservoir at Petite Rivière and renders available a distribution of approximately one million gallons per 24 hours in the town area. It is also supplied to shipping.

Grand River North West and Mare-aux-Vacoas are now constant water supplies throughout the day.

MARKETS.

The three markets of the town are under the direct supervision of the Municipality. They have now fallen into a state of disrepair and are no longer fly-proof.

SLAUGHTER-HOUSES.

The slaughter-house at Roche Bois is managed by the Municipality, and all carcases are examined by a Veterinary Surgeon.

CEMETERIES.

Two of the three Cemeteries belong to the Municipal Corporation; a third, the Chinese Cemetery, is under the control of the Sanitary Department.

MILK SUPPLY.

The control of milk supply was conducted by Sanitary Inspectors Louis and Tanguy working conjointly.

The following is a summary of the action in this connection:

Number of milk-sellers whose milk was tested	1,370
Number of samples analysed	77
Number of samples found genuine	4
Number of samples found to be sophisticated	71
Number of samples altered	2
Number of contraventions established	44
Number of convictions	44
Imprisonment	13
Length of time	22 months.

L. M. J. R. PILOT, M.B., B.S., (Lond.), D.T.M. & H., (Lond.),
Medical Officer of Health, Port Louis, and Port Health Officer.

APPENDIX V.

Report on the Mental Hospital for the Year 1932.

TOTAL INSANE POPULATION OF COLONY.

1. The total number of certified insane persons in the Colony on 31st December, 1932, was 855, compared with 834 on 31st December, 1931.

2. The following table shows the distribution of the 855 certified insane persons in the Colony on 31st December, 1932.

	GENERAL			INDIAN			CHINESE			TOTAL
	M.	F.	T.	M.	F.	T.	M.	F.	T.	
At Mental Hospital ...	183	177	360	181	106	287	13	2	15	662
On probation leave ...	43	44	87	51	38	89	2	1	3	179
On leave under G.N. No. 239/24 ...	5	5	10	2	2	4	—	—	—	14
Total ...	231	226	457	234	146	380	15	3	18	855

3. The percentage sex-distribution of the 855 certified insane persons was, males 56.14 and females 43.86, compared with males 50.84 and females 49.16, for the estimated population of the Island on 31st December, 1932.

4. The following table gives the insane rates per 10,000 of the population of the Island, calculated on the number of certified insane persons in the Colony on 31st December, 1932.

	M.	F.	T.
General population	41.6	36.6	38.9
Indian population	17.2	11.5	14.4
Chinese population	24.1	11.8	20.5
Total population	24.3	19.6	22.0

The above table shows that insanity is more prevalent among males than females. The total insane rate for the "General" population is more than twice that for Indians, and is approximately the British rate of 37 per 10,000.

5. The following table gives the total insane rate per 10,000 of the population of the Island for the years 1924 to 1932, also the total number of certified insane persons and the estimated population of the Island on December 31st of each of these years:

Years.	Insane rate per 10,000 of population.	Total certified insane on December 31st.	Population of Colony on December 31st.
1924	17.6	686	387,743
1925	17.7	700	393,708
1926	18.0	719	398,236
1927	18.1	729	401,693
1928	18.4	748	404,802
1929	18.7	759	405,549
1930	20.5	833	404,458
1931	21.3	834	391,044
1932	22.0	855	388,400

The above table shows a sharp rise in the incidence of insanity within recent years. It is probable that with the return to prosperity of the Colony, and the consequent disappearance or mitigation of such adverse factors as increased worry, privation, unemployment, and greater prevalence of bodily sickness, the insane rate will show a corresponding improvement.

HOSPITAL POPULATION.

6. There were 668 persons in hospital (males 383, females 285) on 31st December, 1932. Of these, 6 males were under interim detention pending a decision as to their mental state, so that the total number of certified insane persons in hospital on the above date was 662 (males 377, females 285), compared with 649 (males 367, females 282) on 31st December, 1931.

Included in the 662 certified insane were 13 male and 16 female paying patients.

The daily average number resident was 681 (males 386, females 295), compared with 680 for 1931, 654 for 1930, 619 for 1929, 612 for 1928 and 1927, and 582 for 1926.

The maximum daily number resident during the year was 705 (males 401, females 304), compared with 706 (males 401, females 305) in 1931.

7. CRIMINAL MENTAL PATIENTS.

	M.	F.	T.
In hospital on 31st December, 1931	13	—	13
Admitted during 1932	3	1	4
Readmitted from probation leave during 1932 ...	1	—	1
Discharged or dealt with under Art. 60, Ord. 23 of 1906...	1	—	1
Died during 1932	—	—	—
Remaining on 31st December, 1932	16	1	17

Of the four criminal mental patients admitted during the year, one, A.....W....., a Chinaman aged 32, was transferred from the Beau Bassin Prisons where he was undergoing a life-sentence for murder; he suffers from acute melancholia. Another, M.....M....., an Indian aged 45, was prosecuted for stealing a bicycle and found insane at the trial. The third criminal mental patient, M.....R....., a Creole aged 30, suffered from acute confusional insanity; he was alleged to have assaulted the Police. The only female criminal mental patient admitted during the year, I.....A....., aged 29, came from Rodrigues, where she was found insane whilst under detention for wounds and blows with premeditation.

8. The following table shows the duration in hospital to 31st December, 1932, of the 662 certified resident patients:

	M.	F.	T.
1 year or less	63	50	113
Between 1 and 2 years	29	23	52
,, 2 and 3 years	25	25	50
,, 3 and 4 years	29	16	45
,, 4 and 5 years	20	14	34
,, 5 and 6 years	15	12	27
,, 6 and 7 years	21	13	34
,, 7 and 8 years	23	8	31
,, 8 and 9 years	16	8	24
,, 9 and 10 years	18	7	25
,, 10 and 15 years	32	32	64
,, 15 and 20 years	28	39	67
,, 20 and 25 years	20	12	32
,, 25 and 30 years	19	14	33
Over 30 years	19	12	31
Total ...	377	285	662

It will be seen from the above table that more than half of the total number of patients have been in hospital 5 years or more, the prognosis in the majority of these cases being hopeless.

9. ADMISSIONS.

	1931			1932		
	M.	F.	T.	M.	F.	T.
1st Admissions, certified patients ...	59	47	106	54	56	110
2nd Admissions, certified patients ...	11	7	18	8	5	13
3rd Admissions, certified patients ...	1	5	6	2	—	2
4th Admissions, certified patients ...	—	1	1	—	—	—
Readmissions from probation leave ...	40	17	57	36	25	61
Readmissions from leave under G.N.239/24	43	21	64	31	57	88
Admitted under interim detention, later found not to be proper persons to be kept in hospital and accordingly released ...	21	14	35	25	24	49
Admitted under interim detention but not certified or released on 31st December, 1932	2	2	4	6	—	6
Admitted under interim detention and died whilst so detained	1	1	2	2	1	3
Readmitted after escapes	1	—	1	3	—	3
Readmitted from Victoria or Civil Hospitals	—	1	1	2	1	3
Total ...	179	116	295	169	169	338

The above table shows that in 1932 a total of 125 patients (males 64, females 61) were admitted into the Mental Hospital as certified insane (1st, 2nd, and 3rd admissions). These are hereunder referred to as direct admissions. Included in the 125 direct admissions are 2 males and 1 female who were under interim detention on 31st December, 1931, and were certified during 1932.

10. Table showing the districts whence came the 125 direct admissions and the insane rate per 10,000 of the population of such districts:

Districts.	No. of direct admissions.	Estimated population of districts on 31st December, 1932.	Insane rate per 10,000 of population.
Port Louis ...	29	54,143	5.3
Plaines Wilhems ...	44	96,653	4.5
Pamplemousses ...	10	35,585	2.8
Flacq	13	51,330	2.5
Moka	7	29,152	2.4
Rivière du Rempart	7	30,358	2.3
Grand Port ...	9	47,397	1.9
Savanne ...	5	30,170	1.6
Black River ...	—	13,612	—
Total ...	124	388,400	3.1
Rodrigues ...	1	—	—

The above figures show that the incidence of insanity is much lower in the agricultural districts, as compared with the urban district of Port Louis.

11. The following table shows the probable causes of insanity in the case of the 125 direct admissions:

CAUSES	M.	F.	T.
Heredity:			
Insane	12	16	28
Epileptic	—	—	—
Neurotic	—	1	1
Marked eccentricity and alcoholism	—	—	—
Mental instability:			
Moral deficiency and eccentricity	—	—	—
Feeblemindedness	1	2	3
Deprivation of special senses	—	—	—
Critical periods:			
Puberty and adolescence	—	—	—
Climacteric	—	3	3
Senility	2	4	6
Child-bearing:			
Pregnancy	—	—	—
Puerperium	—	6	6
Lactation	—	—	—
Mental stress:			
Sudden	2	4	6
Prolonged	12	4	16
Physiological defects and errors:			
Malnutrition in early life	—	—	—
Privation and starvation	1	1	2
Physical over-exertion	—	—	—
Traumatic:			
Injuries	—	1	1
Operations	—	—	—
Sunstroke	—	—	—
Diseases of Nervous System:			
Brain lesions	—	1	1
Lesions of spinal cord and nerves	—	—	—
Epilepsy	3	5	8
Convulsions	3	1	4
Neuroses and night terrors	—	—	—
Toxic:			
Syphilis	10	7	17
Alcohol	3	2	5
Drugs: gandia, opium, cocaine &c.	1	—	1
Lead and other metals	—	—	—
Malaria	20	10	30
Influenza, enteric and other specific fevers	—	—	—
Sepsis: dental, tonsils, sinuses, &c.	2	4	6
Ankylostomiasis	1	—	1
Phthisis	1	1	2
Dysentery: amoebic, bacillary and other types	—	—	—
Other toxins	—	1	1

CAUSES	M.	F.	T.
Other bodily affections:			
Arteriosclerosis	2	—	2
Other cardio-vascular lesions	—	—	—
Urinary	—	—	—
Respiratory	—	—	—
Thyroid and pituitary disorders	—	—	—
Beri-beri, pellagra	—	—	—
Diabetes	1	—	1
Uraemia	1	—	1

In examining the above table it must be borne in mind that one or more of the causes enumerated therein may be responsible for the production of the mental illness, hence the excess of the aggregate of such causes over the number of patients considered. Heredity, mental stress, malaria, syphilis, epilepsy, and alcohol are, as usual, prominent etiological factors.

ALCOHOLISM.

12. The five alcoholics admitted during the year (males 3, females 2) were all Creoles.

The following table gives the districts whence came the alcoholics admitted during the period 1927—32.

	1927	1928	1929	1930	1931	1932
Port Louis	1	6	7	3	3	1
Plaines Wilhems	4	4	3	2	4	4
Rivière du Rempart	2	1	1	—	—	—
Savanne	—	1	1	2	1	—
Grand Port	2	—	1	1	3	—
Moka	—	1	1	—	1	—
Flacq	—	—	—	—	—	—
Pamplemousses	—	—	2	—	1	—
Black River	—	—	—	1	1	—
Total ...	9	13	16	9	14	5

DISCHARGES.

13. The total number of discharges during the year was 270, as against 232 in 1931.

The following table shows the classification of discharges for 1931 and 1932.

	1931			1932		
	M.	F.	T.	M.	F.	T.
Discharged recovered ...	—	1	1	1	1	2
Discharged relieved	73	43	116	59	56	115
Discharged not improved ...	2	3	5	2	7	9
Discharged on leave under G.N.239/24	45	19	64	29	59	88
Alleged mental patients found sane and released	25	19	44	25	24	49
Transferred to Civil and Victoria Hospitals	—	—	—	3	2	5
Escaped	2	—	2	2	—	2
Total ...	147	85	232	121	149	270

The percentage of discharges (recovered, relieved, not improved) to admissions (direct admissions plus readmissions from probation) was 67.7 (males 62.0, females 74.4), compared with 64.8 (males 67.5, females 61.0) for 1931. During the year 42 patients (males 20, females 22) out on probation leave, were found cured and finally discharged.

DEATHS.

14. During the year there were 49 deaths (males 31, females 18), as against 56 in 1931. Of these 9 took place within one month of the patients' admission and were mainly due to their poor state of health. The death-rate, calculated on the daily average number of patients resident was 7.20% (males 8.03% females 6.12%), compared with 8.23 % for 1931 (males 7.77%, females 8.84%).

The following table gives the causes of death and the number of patients who died from each cause:

CAUSES	M.	F.	T.
Influenza	1	4	5
Acute lobar pneumonia	2	2	4
Broncho-pneumonia	3	1	4
Myocardial degeneration	3	1	4
Phthisis	2	1	3
General paralysis of the Insane	2	1	3
Acute Enteritis	2	—	2
Dysentery	2	—	2
Acute cystitis and toxaemia	2	—	2
Chronic Enteritis	1	1	2
Cerebral Haemorrhage	2	—	2
Malaria	1	1	2
Senile debility	1	1	2
Epilepsy	2	—	2
Chronic bronchitis	1	—	1
Gastric ulcer	1	—	1
Acute gastro-enteritis	—	1	1
Chronic pleurisy	1	—	1
Abscess of lung	—	1	1
Uraemia	1	—	1
Gangrene of lung	—	1	1
Ankylostomiasis	—	1	1
Acute yellow atrophy of liver	—	1	1
Cellulitis and toxaemia	1	—	1
Total ...	31	18	49

Thirteen post-mortem examinations were made, giving a percentage of 26.5 of total deaths.

PREVALENCE OF SICKNESS.

15. The following table gives the number of cases treated in both Infirmaries; the daily average of sick, and the sick-rate for the years 1931 and 1932:

	1931			1932		
	M.	F.	T.	M.	F.	T.
Number of cases treated in Infirmaries	256	199	455	318	205	523
Daily average of sick in Infirmaries	7.91	4.95	12.86	8.27	6.14	14.41
Sick-rate per cent, calculated on daily average number of patients in hospital	2.40	1.68	1.88	2.13	2.08	2.11

16. Table of monthly admissions into the two Infirmaries, total stay therein, and average stay per patient for the years 1931 and 1932:

1931				1932			
	M.	F.	T.		M.	F.	T.
January ...	21	18	39	January ...	43	42	85
February ...	27	6	33	February ...	85	82	167
March ...	18	18	36	March ...	48	14	62
April ...	20	23	43	April ...	16	9	25
May ...	25	29	54	May ...	20	7	27
June ...	19	18	37	June ...	13	5	18
July ...	21	19	40	July ...	25	11	36
August ...	13	18	31	August ...	12	13	25
September ...	18	9	27	September ...	19	5	24
October ...	19	18	37	October ...	8	8	16
November ...	32	11	43	November ...	20	3	23
December ...	23	12	35	December ...	9	6	15
Total ...	256	199	455	Total ...	318	205	523
Total stay in days	2,890	1,810	4,700	Total stay in days	3,029	2,248	5,277
Average stay per patient ...	11.28	9.09	10.32	Average stay per patient ...	9.52	10.96	10.08

The above tables show an increase of sickness in 1932, especially during the first three months of the year, due to an epidemic of influenza.

17. The following table shows the monthly admissions in both Infirmaries for the commoner diseases:

Diseases	January	February	March	April	May	June	July	August	September	October	November	December	Total
Influenza ...	43	131	—	1	—	—	1	3	—	2	—	2	183
Malaria ...	8	8	21	5	10	3	2	2	1	2	4	2	68
Dysentery—amoebic ...	1	4	1	—	—	—	—	3	3	—	3	—	15
Dysentery—other types ...	3	2	5	2	—	—	7	3	3	—	—	—	25
Ulcer ...	5	2	4	4	2	1	2	2	—	—	—	—	22
Abscess ...	3	1	3	1	3	2	2	3	2	1	—	1	22
Epilepsy ...	3	2	2	1	—	1	2	1	1	—	4	—	17
Cellulitis ...	—	3	2	2	—	—	1	—	—	—	1	1	10
Acute enteritis	3	—	2	—	—	1	2	—	—	—	—	—	8
Phthisis ...	1	2	—	—	1	1	—	—	—	1	1	1	8
Boil ...	—	2	2	2	—	—	1	—	—	—	—	—	7
Lymphadenitis	1	—	—	1	—	—	3	1	1	—	—	—	7
Impetigo ...	—	—	3	—	1	—	1	—	1	—	—	—	6

INFECTIOUS AND ALLIED DISEASES.

18. There were 40 cases of dysentery, 15 of which were of the amoebic type. There were no cases of bacillary dysentery. Influenza cases numbered 183, as against 35 in 1931. An epidemic of this disease occurred in February and was practically over by the beginning of March. Malaria accounted for 68 cases, as against 113 in 1931. During the year 8 cases of phthisis needed active treatment, 4 of whom died. There was one non-fatal case of typhoid fever, the patient having been most probably infected by food given him on a visiting day by one of his relatives or friends.

Our patients did not suffer from the Exanthemata.

VIOLENCE, ESCAPES, ETC.

19. There were no cases of suicide or homicide.

Two patients escaped during the year. One. J.....L....., an ex-convict, absconded on 5th March, 1932. On 25th March, 1932, he was found rifling the poor-box of Quatre Bornes Anglican Church, and when chased by the caretaker he fell into La Ferme Canal whence he was rescued and brought back here. The other patient, G.....L....., escaped during the night of the 3rd to the 4th of May, 1932, by pulling aside two iron bars of the lavatory annexe of one of the wards. The Police apprehended and brought him back on 25th May, 1932.

The number of cases of injury to patients was as follows:

Self-inflicted	...	7
Inflicted by attendants	...	—
Inflicted by patients	...	74
Inflicted accidently	...	122

The above injuries were of a trivial nature, except:

(i) a fracture of the metacarpal of the right thumb sustained during an accidental fall;

(ii) a fracture of the second metacarpal of the right hand, also sustained accidentally;

(iii) a Colles's fracture of the left wrist, produced by a fall during patient's excitement;

(iv) a dislocation of the right elbow, probably caused by a fall during an epileptic fit;

(v) a fracture of the middle of the right radius, caused by the patient's accidentally hitting the corner of an armoire;

(vi) a Pott's fracture of the left leg; patient was kicked by another whilst standing against the foot of a bed;

(vii) a fracture of the middle of the right radius, sustained in a fall during a fight with another patient.

On twenty-three occasions members of the staff were injured by patients, but in no case was the injury of a serious nature.

20. Table showing the classification of the 662 certified patients in hospital on 31st December, 1932, according to the type of mental disorder:—

TYPES OF MENTAL DISORDER	M.	F.	T.
Primary dementia	67	28	95
Senile dementia	9	5	14
Terminal dementia	128	110	238
Amentia with epilepsy	16	10	26
Amentia without epilepsy	21	14	35
Mania, recent	17	27	44
Mania, recurrent	7	10	17
Mania, chronic	5	8	13
Mania, acute delirious	—	—	—
Melancholia, recent	17	11	28
Melancholia, recurrent	2	—	2
Melancholia, chronic	11	5	16
Alternating insanity	6	3	9
Paranoia	3	3	6
Paraphrenia	7	9	16
Non-systematised delusional insanity	7	8	15
Acute confusional insanity	3	2	5
Epileptic insanity	34	29	63
General paralysis of the insane	9	2	11
Volitional insanity	—	—	—
Moral insanity	5	1	6
Insanity with gross brain lesions	2	—	2
Undiagnosed	1	—	1
Total ...	377	285	662

OCCUPATIONAL TREATMENT.

21. During the year a daily average of 47 patients, mostly Indians, attended to the vegetable gardens. All the laundry work of the hospital was done by female patients and this, together with ward work, kitchen work, darning, the upkeep of the hospital grounds and piggery, mattress-making, carpentry and the manufacture of hospital tinware gave employment daily to an average of 203 male and 108 female patients.

The estimated value of the work done by patients during the year, including garden produce, was Rs. 15,488.11.

RESTRAINT AND SECLUSION.

22. During the year mechanical restraint—strait-jacket—was resorted to in the case of 9 males and 3 females and seclusion in the case of 3 males and 1 female.

The greatest duration for mechanical restraint was 12½ hours and for seclusion 9 hours.

RECREATION.

23. During 1932 the Police Band played ten times at the hospital. Twelve cinematograph performances were given as well as two treats consisting of cake, fruit, lemonade and other delicacies. Gramophone music is often played during the week and always on Sundays. Cards, draughts, dominoes, chess and loto are favourite games. A few of the male patients play football on the grounds of the hospital. The soccer team frequently distinguishes itself against local visiting teams.

French and English papers and periodicals were sent us by people interested in the welfare of our patients, but the number received was far below our requirements.

The piano in the female department was occasionally used by patients, their friends and relatives.

COST OF MAINTENANCE.

24. The items making up the average weekly cost, per head, are given in the following table for the period 1st July, 1931, to 30th June, 1932:

ITEMS	RS. CS.
Provisions, fuel and light, not including Institution garden produce	86,700.48
Personal Emoluments	96,276.44
Clothing, bedding, uniforms, washing requisites	16,955.35
Drugs, dressings, surgical instruments ,etc.	1,570.82
Implements, stores, sundries	2,690.21
Fees for District Commissioners of Lunacy	2,670.00
Fees for member of Central Board	252.00
Recreation for patients	789.50
Telephone: rental and calls	179.75
Travelling and transport	201.24
Total ...	208,285.79
Less fees from private patients ... Rs. 9,413.51	
Less sale price of refuse food ... Rs. 607.21	
Less sale price of 2 pigs ... Rs. 95.00	
Less Rs.	10,115.72
Net total expenditure ... Rs.	198,170.07
Average weekly cost per head ... Rs.	5.59

The following table gives the average weekly cost per head, the net yearly total expenditure and the daily average number of patients in hospital for the financial years 1926-27 to 1931-32:

Years.	Net total expenditure.	Average weekly cost per head.	Daily average number of patients in hospital.
1926-27	Rs. 245,637.69	Rs. 7.86	601
1927-28	Rs. 256,831.02	Rs. 7.92	623
1928-29	Rs. 249,134.07	Rs. 7.90	606
1929-30	Rs. 226,910.87	Rs. 6.85	637
1930-31	Rs. 219,809.08	Rs. 6.27	674
1931-32	Rs. 198,170.07	Rs. 5.59	681

It will be seen from the above table that the weekly cost of maintenance per patient has again been considerably reduced. It is interesting to compare our average weekly cost per head with that for English County and Borough Mental Hospitals which is about 22/-, i.e. Rs 15.07 at the present rate of exchange.

STAFF.

25. The staff of the hospital consists of:

1 Medical Superintendent.
1 Assistant Medical Superintendent.
1 Steward and Accountant who also acts as Head Attendant.
1 Dispenser and Storekeeper.
1 Matron.
1 Assistant Matron.
13 Male Nurses or Warders.
8 Female Nurses.
1 Gatekeeper.
1 Seamstress.
69 Male Servants.
45 Female Servants.

On 1st April, 1932, Dr. E. Brunel assumed duty as temporary and provisional Assistant Medical Superintendent, in the room of Dr. H. Mollière, resigned.

On 23rd March, 1932, Mr. P. Ramtohul was appointed Warder, vice Mr. G. Grenouille, dismissed.

On 30th March, 1932, Mr. J. Goder resigned his post as Warder.

Miss F. Boi was appointed Nurse on 2nd May, 1932, vice Mrs. M. Rose, deceased.

On 19th August, 1932, Miss L. Standley was appointed Assistant Matron, on a temporary and provisional basis.

Miss E. Vallet resigned on 1st September, 1932, and was replaced by Miss B. Rose on 12th September, 1932, as Nurse.

Mr. P. Ramtohul resigned his post as Warder on 30th September, 1932.

On 8th November, 1932, Mr. L. R. M. Duval was appointed Warder.

ACCOMMODATION.

26. The hospital is overcrowed, especially on the female side. We have at present 295 female patients who are housed in wards that were originally built for 233. As a result we are unable to segregate the noisy and refractory cases. New admissions are not classified and have to be treated in the Infirmary which has space for only 22 beds. There they meet the sick and infirm chronics who are often noisy and objectionable in their habits. Such a state of affairs is, of course, detrimental to the recoverable cases.

LAW CHANGES.

27. Ordinance No. 37 of 1932 was passed amending various articles of the Lunacy Ordinance, 1906, and providing for the payment by the next-of-kin, either of the whole or part of the expenses incurred by Government for the maintenance and treatment of patients under interim detention.

VISITS.

28. His Lordship the Bishop of Mauritius visited the Institution on 28th July, 1932, and 2nd December, 1932.

During the year the Central Board of Commissioners of Lunacy held 12 monthly meetings and on each occasion visited the hospital. Apart from his monthly visits with the Central Board, the Honourable Medical Director also called at the hospital on 8 other occasions.

Two boards of survey were held and our accounts and stores were checked 5 times by an Audit Inspector. No irregularities were found.

RELIGIOUS SERVICES.

29. During the year Mass was said on 10 occasions. There were also 2 Church of England services. An average of 40 patients attended each Roman Catholic service and 7 each Anglican service.

CONCLUSION.

30. To conclude, I wish to thank the Honourable Medical Director and the Members of the Central Board for their valuable help in furthering the welfare of our patients.

J. D. DYSON, M.B., B.S., Lond.; D.P.M.,
Medical Superintendent, Mental Hospital.

Beau Bassin,
20th April, 1933.

APPENDIX VI.

Annual Report on the Leper Hospital for the Year 1932.

The following table gives the number of patients, admissions, discharges, and deaths for 1932.

	MALES	FEMALES
Remaining on 1st January, 1932 ...	35	9
Admitted during year	3	2
	38	11
Discharged during year	3	1
Dead during year	1	1
	4	2
Remaining on 31st December, 1932 ...	34	9

Out-Patients.

Two of our former out-patients have been finally discharged. They have, however, to submit to re-examination every three months. They have remained well during the period under review.

Discharges.

Of our four patients discharged, one was formerly an advanced nodular case. He left the Hospital cured, without any disabling deformity. He had been bacteriologically negative for a whole year previous to his discharge, which had to be deferred for two reasons : one reason was that it was thought necessary to keep him under observation ; the other reason was that no suitable work having been found for him, it was deemed an unwise course after the years of ordeal he had gone through, to let him face an uncertain future.

It is an important part of the after-treatment of such cases to make sure that the patient does not fall on adverse times after he is no longer under direct and continuous control. The problem, then, is more social and economic than medical.

On the other hand it is no easy matter for one who has for many years been out of touch with the outside world, to adapt himself to new surroundings and try to earn a livelihood, even when he has not to bear the handicap of disabling deformities and mutilations.

To help those patients after their discharge it has been suggested that as many of them who are able or willing to work should be employed and given certain small salaries, which if saved up, even partly, could form a small capital that would enable them to make a new start in life.

The other discharges concern a mild cutaneous case of fairly recent origin, and two neural cases.

Admissions..

Of the five admissions 3 were cutaneous (2 C_3 and 1 C_2), and 2 neural cases.

Two of these patients were admitted afetr examination by the Leprosy Board ; two were admitted on their own application, being aware of the nature of their affection and being anxious to submit to treatment ; the fifth case was admited on his application after he had been informed of the nature of his complaint.

This last patient has improved considerably within the space of the period under review.

GENERAL REMARKS.

Nothing new can be said, except to record the sustained progress of those cases that are amenable to treatment.
The classification of cases as on 31st December, 1932 is as follows :

1o.	Neural case without deformity or trophic change ...	1
2o.	Neural case with deformity or trophic change	4
3o.	Arrested neural case with deformity and trophic change ...	20
4o.	Mild cuatneous case	5
5o.	Cutaneous case of medium severity	8
6o.	Advanced nodular case	3
7o.	Leucoderme	1
8o.	Cured case, but patient blind	1
		43

H. ANDRE,
Medical Superintendent, Leper Hosiptal.

19th August, 1933.

APPENDIX VII.

Report on the Radiological and Electrological Work performed at the various hospitals of the Colony.

MOKA HOSPITAL.

From January to December, 1932, 726 screen examinations were carried out. These were all routine investigations in chest and gastro-intestinal conditions.

In last year's report attention was drawn to the large number of cases of pulmonary tuberculosis occurring among the poorer classes of the community, the same state of affairs is still noticeable. The majority of these unfortunate patients were referred from Civil Hospital.

The Chinese population has furnished an important quota of tuberculous patients, most of the cases showed advanced pulmonary involvement.

Artificial pneumothorax, in selected cases, continues to prove itself a valuable therapeutic measure. Several cases have been regularly sent for screen examination following air insufflation. These " follow-up " cases had had artificial pneumothorax instituted for periods varying from one year to three years, and none showed any recrudescence of the disease and their general state of health was quite satisfactory.

Of the 726 cases screened, 255 were referred for examination of the stomach, 189 or 74.1% of the stomach cases belonged to the Indian population.

ADMINISTRATION.

The expenditure incurred during the year amounted to Rs. 308.50 and the items were

(1) Gelobarine	Rs.	94.00
(2) Petrol (for internal combustion engine) ...		192.00
(3) Lubricating oil		22.50

Rs. 1,236.00 were collected in examination fees, thus leaving a surplus of Rs. 927.50 over expenditure. As can be seen, motor spirit heads the list of the expenditure items ; this would be considerably reduced were it possible to link up the X-ray plant to a company's mains, the difficulty at present lies in fact that no day supply is available in this district.

It is hoped, however, that this condition will soon be remedied.

CIVIL HOSPITAL.

At this institution the obsolete X-ray plant has been discarded, and no X-ray examinations were carried out during the year.

An X-ray plant for a hospital of its size is an absolute necessity.

At present cases are taken to Victoria Hospital for radiographs and to Moka Hospital for screening. The journeys are effected in motor ambulances, the cost of transport is high, the stretcher cases are jolted and subjected to a not inconsiderable amount of suffering.

It must be pointed out that apart from these important considerations, the Civil Hospital is called upon to deal with injuries sustained in street accidents from the congested traffic in Port Louis, from the shipping in the harbour, from quays, docks, wharves, granary, garages, engineering shops, and other potential sources of severe injuries.

The distance covered by the motor ambulances in conveying the patients from and to the Civil Hospital was 1,384 miles, the cost per mile is reckoned at 30 cents, therefore the expenditure for transport amounted to Rs. 415.20 during the year.

The ultra violet lamp was in use for an average of two hours per working day.

Two hundred and eighty three patients were treated and 2,101 exposures made.

The fuel and lubricating oil for the engine cost Rs. 410.10, the fees collected amounted to Rs. 127.30.

Civil Hospital is now supplied with day current from the General Electric Co's mains, and in the future expenses under these heads will disappear, to give way to a low consumption figure at a cheap rate.

VICTORIA HOSPITAL.

The X-ray department has now a day supply of electricity from the General Electric Co., and the connection was effected on the 4th of June. From that date until the end of the year the department was very busy.

The change over has been the means of effecting considerable reduction in working expenses. During this transition period the occasional use of the internal combustion engine involved a total expenditure of Rs. 88.25. On the other hand, from the 4th of June to 31st December, with the department working to capacity, the cost of electrical energy supplied was Rs. 94.50.

A further saving was effected when the services of the mechanic who looked after the engine-room were dispensed with at the end of May ; his salary was Rs. 45 a month.

Three hundred and thirty radiographs were made from June to December.

Fifty-seven patients paid for their X-ray examination, the fees collected amounting to Rs. 255.35.

The electrological section brought in Rs. 82.

The receipts and expenditure of the three hospitals may be tabulated—

		Receipts	*Expenditure*
Moka Hospital	...	Rs. 1,236.00	Rs. 308.50
Civil Hospital	...	Rs. 127.30	Rs. 410.10
Victoria Hospital	...	Rs. 337.35	Rs. 182.75
		Rs. 1,700.65	Rs. 901.35

Balance : Rs. 799.30.

The following case records, showing the influence of Diathermy on the intestinal symptoms in Bacillary Dysentery, are sufficiently interesting to warrant publication.

No pretentious claim is put forward that Diathermy cures Bacillary dysentery. The number of cases treated is small, but the results obtained are so satisfactory, we feel that that method of treatment, if it may be considered as one, opens up a new field in the treatment of this important disease.

Conclusions as to the probable effects of the high frequency current in at least hastening the course of these cases towards complete recovery are withheld pending further investigation.

Case 1.

The patient contracted Bacillary dysentery on January 15th.

The disease from its onset to the time when Diathermy was applied ran a severe course.

The patient, after three month's illness, was going downhill in spite of every therapeutic measure instituted.

His condition was grave when, as a last resort, Diathermy was tried. The following signs and symptoms were then noted.

1o. Marked ascites ;
2o. Oedema of abdominal walls ;
3o. Tongue red and raw ;
4o. Oedema of feet and legs ;
5o. Enlarged liver ;
6o. Anuria ;
7o. Pyrexia ;
8o. Sleeplessness and mental depression ;
9o. Emaciation ;
10o. The number of stools had diminished to 10 in 24 hours and consisted of shreddy blood-tinged mucus. The stools were passed in bed as the use of the bed-pan tended towards exhaustion of the patient.

Two large sheet-metal electrodes were used, the larger was applied to the back and extended from below the scapulae to the sacroiliac joints. The smaller was shaped to cover the whole of the anterior abdominal wall from the epigastric region to the symphysis pubis. At the beginning two short applications daily were tried each lasting about 15 minutes ; it is a curious fact that high milliamperage could be used in this case ; the patient only felt a slight warmth. After the first few applications no sweating or ridnes of the skin could be observed, although the milliameter had registered 4,500 during the sitting.

During the first week no change in the state of the patient could be noticed.

The applications were continued and extended to half an hour morning and afternoon. At the beginning of the second week the patient who had no great faith in this form of treatment, was more cheerful and admitted that he felt better. From that time progress was rapid and the change in the patient dramatic. The free abdominal fluid diminished so quickly that the protuberant abdomen was transformed into one with prominent costal margins and iliac spines thereby increasing the difficulties of effecting good contact with the anterior electrode.

The stools had diminished in frequency and improved in character, bile having appeared. A more generous diet was allowed, the patient regained strength and in three weeks he was allowed to sit up in bed.

Convalescence was uninterrupted and uneventful. He was discharged from hospital at the end of May, and in spite of opposition to the contrary, he resumed duty on the 1st of July.

Case 2 :

The patient became infected with Shiga strain. This was an acute case and, in spite of specific therapy, was not progressing ; the stools consisted of pure blood with shreds of mucus, the patient had considerable pain and discomfort in the abdomen. In view of the good result obtained in *case 1* Diatheramy was tried. The applications were as in the previous case. From the first day of treatment the patient experienced a sense of wellbeing which increased as the treatment progressed ; rapid amelioration of all symptoms ensued and the patient was passing practically normal stools twelve days later.

He, however, developed an arthritis of the right sterno-clavicular joint with effusion, the right knee was similarly affected, and an acute conjunctivitis of the right eye supervened during convalescence.

Case 3

This case, another Shiga infection, was seen three months after the onset of the disease ; the stools were watery and contained blood-stained shreds of mucus. Both knee joints and ankle joints were red, swollen, and painful Removal to Victoria Hospital was advised in view of electrical treatment.

Fifteen days after the start of Diathermy, the patient was passing formed normal stools.

The joint conditions, however, were practically uninfluenced by local application of the high-frequency current.

This case should not have been included in this series, as the patient was treated in 1933, but came under our notice during the preparation of this report and, as it bears certain features in common with Cases 1 and 2, it is thought justifiable to place it on record.

This necessarily brief review of the Radiological and Electrological section of the Medical Department conveys a quite inadequate expression of the volume of work carried out.

As noted in the last report, the Radiologist, a full-time worker, is his own

1o. Clinical Assistant ;

2o. Radiographer ;

3o. Nurse ;

4o. Clerk and Statistician ;

besides acting as Superintendent of Victoria Hospital when that officer proceeds to Europe on long leave.

W. R. DUPRE, D. M. R. E.(CAMB.),
Victoria Hospital.

ERRATUM.

In the 1931 report, on page 44, the return of diseases and deaths as regards Malarial Cachexia and Blackwater should read as follows:

	CACHEXIA	BLACKWATER
Remaining in Hospital at end of 1930 ...	2	—
Admissions	850	54
Deaths	62	9
Total Cases	852	54
Remaining in Hospital at end of 1931 ...	5	—

Instead of:

Remaining in Hospital at end of 1930 ...	2	—
Admissions	684	220
Deaths	56	15
Total Cases	686	220
Remaining in Hospital at end of 1931 ...	5	—

APPENDIX VIII

RETURN OF DISEASES AND DEATHS (IN PATIENTS) FOR THE YEAR 1932

DISEASES	Remaining in Hospital at end of 1931	Yearly Total: Admissions	Yearly Total: Deaths	Total cases treated	Remaining in Hospital at end of 1932
I.—*Epidemic, Endemic and Infectious Diseases*					
1. Enteric Group—					
(*a*) Typhoid Fever	4	44	8	48	3
(*b*) Paratyphoid A.	—	2	—	2	—
(*c*) Paratyphoid B.	—	—	—	—	—
(*d*) Type not defined	—	—	—	—	—
2. Typhus	—	—	—	—	—
3. Relapsing Fever	—	—	—	—	—
4. Undulant Fever	—	—	—	—	—
5. Malaria—					
(*a*) Tertian	23	954	13	977	13
(*b*) Quartan	—	37	—	37	—
(*c*) Aestivo-autumnal	—	3	—	3	—
(*d*) Cachexia	7	768	44	775	12
(*e*) Blackwater	—	35	6	35	1
(*f*) Unclassified	27	1,764	51	1,791	17
6. Smallpox—					
Alastrim	—	—	—	—	—
7. Measles	—	1	—	1	—
8. Scarlet Fever	—	—	—	—	—
9. Whooping Cough	—	54	—	54	—
10. Diphtheria	1	27	3	28	—
11. Influenza	2	1,715	58	1,717	5
12. Miliary Fever	—	—	—	—	—
13. Mumps	—	17	—	17	—
14. Cholera	—	—	—	—	—
15. Epidemic diarrhœa	—	90	21	90	—
16. Dysentery—					
(*a*) Amœbic	3	408	37	411	4
(*b*) Bacillary	—	245	22	245	8
(*c*) Undefined or due to other causes	37	500	39	537	5
17. Plague—					
(*a*) Bubonic	—	—	—	—	—
(*b*) Pneumonic	—	—	—	—	—
(*c*) Septicæmic	—	—	—	—	—
(*d*) Undefined	—	—	—	—	—
18. Yellow Fever	—	—	—	—	—
Total carried forward ...	104	6,664	302	6,768	68

DISEASES	Remaining in Hospital at end of 1931	Yearly Total: Admissions	Yearly Total: Deaths	Total cases treated	Remaining in Hospital at end of 1932
Brought forward	104	6,664	302	6,768	68
I.—*Epidemic, Endemic and Infectious Diseases.*—(Contd.)					
19. Spirochætosis ictero-hæmorrhagica	—	—	—	—	—
20. Leprosy	—	4	—	4	—
21. Erysipelas	2	52	4	54	1
22. Acute Polimyelitis	—	—	—	—	—
23. Encephalitis Lethargica	—	—	—	—	—
24. Epidemic Cerebro-spinal Fever ...	—	—	—	—	—
25. Other Epidemic Diseases—					
(*a*) Rubeola (German Measles) ...	—	—	—	—	—
(*b*) Varicella (Chicken-pox) ...	—	2	—	2	—
(*c*) Kala-azar	—	—	—	—	—
(*d*) Phlebotomus Fever	—	—	—	—	—
[*e*] Dengue	—	—	—	—	—
(*f*) Epidemic Dropsy ...	—	—	—	—	—
(*g*) Yaws	—	—	—	—	—
(*h*) Trypanosomiasis	—	—	—	—	—
26. Glanders	—	—	—	—	—
27. Anthrax	—	2	—	2	—
28. Rabies	—	—	—	—	—
29. Tetanus	1	36	13	37	1
30. Mycosis	—	—	—	—	—
31. Tuberculosis Pulmonary and Phryngeal	13	643	99	656	10
32. Tuberculosis of the Meninges or Central Nervous System ..	—	4	4	4	—
33. Tuberculosis of the Intestine or Peritoneum	—	23	5	23	—
34. Tuberculosis of the Vertebral Column	1	5	1	6	—
35. Tuberculosis of Bones and Joints ..	—	15	1	15	1
36. Tuberculosis of other organs—					
(*a*) Skin or Subcutaneous Tissue (Lupus)	—	11	—	11	—
(*b*) Bones	—	13	—	13	—
(*c*) Lymphatic System	—	41	—	41	1
(*d*) Genito-Urinary	—	1	—	1	1
(*e*) Other Organs	—	7	—	7	1
37. Tuberculosis disseminated					
(*a*) Acute	—	—	—	—	—
(*b*) Chronic	—	—	—	—	—
Total carried forward ...	121	7,523	429	7,644	84

DISEASES	Remaining in Hospital at end of 1931	Yearly Total: Admissions	Yearly Total: Deaths	Total cases treated	Remaining in Hospital at end of 1932
Brought forward	121	7,523	429	7,644	84
I.—*Epidemic, Endemic and Infectious Diseases.*—(Contd.)					
38. Syphilis—					
(*a*) Primary	—	34	—	34	—
(*b*) Secondary	—	24	—	24	—
(*c*) Tertiary	4	143	10	147	4
(*d*) Hereditary	4	37	4	41	6
(*e*) Period not indicated ...	—	76	—	76	1
39. Soft Chancre	1	72	—	73	2
40. A.—Gonorrhœa and its complications...	—	232	—	232	7
B.—Gonorrhœal Ophthalmia ...	1	16	—	17	1
C.—Gonorrhœal Arthritis	—	23	—	23	2
D.—Gonorrhœal Venereum ...	—	—	—	—	—
41. Septicæmia	—	27	26	27	—
42. Other Infectious Diseases—					
(*a*) Trypanosomiasis	—	—	—	—	—
(*b*) Filariasis	1	51	1	52	—
II.—*General Diseases not mentioned above*					
43. Cancer or other malignant Tumours of the Buccal Cavity	—	5	3	5	—
44. Cancer or other malignant Tumours of the Stomach or Liver ...	—	21	8	21	1
45. Cancer or other malignant Tumours of the Peritoneum, Intestines, Rectum	—	15	1	15	—
46. Cancer or other malignant Tumours of the Female Genital Organs ...	—	79	9	79	1
47. Cancer or other malignant Tumours of the Breast	1	14	1	15	1
48. Cancer or other malignant Tumours of the Skin	—	17	—	17	—
49. Cancer or other malignant Tumours of Organs not specified	—	8	4	8	—
50. Tumours non-malignant	1	101	2	102	—
51. Acute Rheumatism	5	126	2	131	3
52. Chronic Rheumatism	2	178	2	180	8
53. Scurvy (including Barlow's Disease)	—	—	—	—	—
54. Pellegra	—	—	—	—	—
55. Beri Beri	—	3	1	3	—
56. Rickets	—	—	—	—	—
Total carried forward ...	141	8,825	503	8,966	121

DISEASES	Remaining in Hospital at end of 1931	Yearly Total: Admissions	Yearly Total: Deaths	Total cases treated	Remaining in Hospital at end of 1932
Brought forward	141	8,825	503	8,966	121
II.—*General Diseases not mentioned above.*—(Contd.)					
57. Diabetes (not including Insipidus)...	2	41	5	43	2
58. Anæmia—					
(*a*) Pernicious	1	11	6	12	—
(*b*) Other Anæmias and Chlorosis	3	177	10	180	—
59. Diseases of the Pituitary Body ..	—	—	—	—	—
60. Diseases of the Thyroid Gland—					
(*a*) Exophthalmic Goitre ...	—	—	—	—	—
(*b*) Other Diseases of the Thyroid Glands, Myxœdema	—	2	—	2	—
61. Diseases of the Para-Thyroid Glands	—	—	—	—	—
62. Diseases of the Thymus	—	—	—	—	—
63. Diseases of the Supra-Renal Glands	—	—	—	—	—
64. Diseases of the Spleen	—	31	1	31	—
65. Leukæmia—					
(*a*) Leukœmia	—	—	—	—	—
(*b*) Hodgkin's Disease	—	—	—	—	—
66. Alcoholism	1	23	—	24	1
67. Chronic poisoning by mineral substances (lead, mercury, &c.) ..	—	—	—	—	—
68. Chronic poisoning by organic substances (Morphia, Cocaine &c.)	—	—	—	—	—
69. Other General Diseases—					
Auto-intoxication	—	—	—	—	—
Purpura-Hæmorrhagica ...	—	—	—	—	—
Hæmophilia	—	—	—	—	—
Diabetes Insipidus	—	2	—	2	—
Uræmia	—	1	1	1	—
III.—*Affections of the Nervous System and organs of the senses*					
70. Encephalitis (not including Encephalitis Lethargica)	1	—	—	1	—
71. Meningitis (not including Tuberculous Meningitis or Cerebro-spinal Meningitis)	—	12	12	12	—
Cephalalgia	—	2	—	2	—
72. Locomotor Ataxia	—	—	—	—	—
Total carried forward ...	149	9,127	538	9,276	124

DISEASES	Remaining in Hospital at end of 1931	Yearly Total: Admissions	Yearly Total: Deaths	Total cases treated	Remaining in Hospital at end of 1932
Brought forward ..	149	9,127	538	9,276	124
III.—*Affections of the Nervous System and organs of the senses.*—(Contd.)					
73. Other affections of the Spinal Cord .	—	1	1	1	—
74. Apoplexy	—	—	—	—	—
(*a*) Hæmorrhage	—	31	13	3	—
(*b*) Embolism	—	—	—	—	—
(*c*) Thrombosis	—	3	1	3	—
(*d*) Unclassified	—	5	5	5	—
75. Paralysis—					
(*a*) Hemiplegia	4	28	1	32	2
(*b*) Other Paralyses	1	19	—	20	—
76. General Paralysis of the Insane ..	—	3	3	3	—
77. Other forms of Mental Alienation	—	4	—	4	—
78. Epilepsy	3	61	3	64	1
79. Eclampsia, Convulsions (non-puerperal) 5 years over	—	3	2	3	—
80. Infantile convulsions	—	10	2	10	—
81. Chorea	—	2	—	2	—
82. A.—Hysteria	—	10	—	10	—
B.—Neuritis	2	18	—	20	—
C.—Neurasthenia	—	9	—	9	—
D.—Vertigo	—	2	—	2	—
E.—Neuralgia	—	11	—	11	—
83. Cerebral softening	—	2	1	2	—
84. Other affections of the Nervous System, such as paralysis Agitans	—	41	—	41	—
85. Affections of the Organs of Vision—					
(*a*) Diseases of the eye	1	124	—	125	—
(*b*) Conjunctivitis	—	86	—	86	1
(*c*) Trachoma	—	—	—	—	—
(*d*) Tumours of the Eye ...	—	1	—	1	—
(*e*) Other affections of the Eye...	7	279	2	286	7
86. A.—Affections of the Ear or Mastoid Sinus	4	129	1	133	2
B.— Other affections of the Ear, etc.	—	38	—	38	—
IV.—*Affections of the Circulatory System*					
87. Pericarditis	—	7	1	7	—
88. Acute Endocarditis or Myocarditis...	—	7	2	7	1
89. Angina Pectoris	—	—	—	—	—
Total carried forward ...	171	10,061	576	10,232	138

DISEASES	Remaining in Hospital at end of 1931	Yearly Total: Admissions	Yearly Total: Deaths	Total cases treated	Remaining in Hospital at end of 1932
Brought forward ..	171	10,061	576	10,232	138
IV.—*Affections of the Circulatory System.*—(Contd.)					
90. Other Diseases of the Heart—					
(*a*) Vulvular—					
Mitral	—	73	18	73	3
Aortic	1	26	1	27	—
Tricuspid	—	—	—	—	—
Pulmonary	—	—	—	—	—
(*b*) Myocarditis	1	110	39	111	1
(*c*) Other diseases	—	9	4	9	—
91. Diseases of the Arteries—					
(*a*) Aneurism	—	2	—	2	—
(*b*) Arterio-Sclorosis	2	76	11	78	1
(*c*) Other Diseases	—	3	—	3	—
92. Embolism or Thrombosis (non-cerebral)	—	5	3	5	—
93. Diseases of the Veins—					
Hæmorrhoids	1	170	1	171	3
Varicose Veins	2	8	—	10	—
Phlebitis	—	7	—	7	—
94. Diseases of the Lymphatic System—					
Lymphag tis	3	42	1	45	1
Lymphadenitis, Bubo (non-specific)	4	212	—	216	8
95. Hæmorrhage of undetermined cause	—	10	1	10	—
96. Other affections of the Circulatory System	2	17	—	19	1
V.—*Affections of the Respiratory System*					
97. Diseases of the Nasal Passages—					
Adenoids	—	11	—	11	—
Polipus	—	35	—	35	—
Rhinitis	—	6	—	6	—
Coryza...	—	—	—	—	—
Other affections	—	7	1	7	—
98. Affections of the Larynx—					
Laryngitis	—	11	—	11	—
99. Bronchitis	—	—	—	—	—
(*a*) Acute	4	539	44	543	3
(*b*) Chronic	—	207	32	207	3
Total carried forward ...	191	11,647	732	11,838	162

DISEASES	Remaining in Hospital at end of 1931	Yearly Total: Admissions	Yearly Total: Deaths	Total cases treated	Remaining in Hospital at end of 1932
Brought forward ..	191	11,647	732	11,838	162
V.—*Affections of the Respiratory System.*—(Contd.)					
100. Broncho-Pneumonia . ..	3	174	72	177	—
101 Pneumonia...	—	—	—	—	—
(*a*) Lobar...	4	130	52	134	3
(*b*) Unclassified	5	243	67	248	2
102. Pleurisy, Emphysema	1	55	7	56	1
103. Congestion of the Lungs	—	11	7	11	—
104. Gangrene of the Lungs	1	4	3	5	—
105. Asthma	5	257	6	262	1
106. Pulmonary Emphysema	1	10	3	11	—
107. Other affections of the Lungs—Pulmonary Spirochætosis .	1	23	2	24	—
VI.—*Diseases of the Digestive System*					
108. A.—Diseases of teeth or gums—Caries, Pyorrhæa, &c. ..	3	237	—	240	3
B.—Other affections of the Mouth—					
Stomatitis	1	23	—	24	—
Glossitis, &c.	1	2	—	3	—
109. Affections of the Pharynx or Tonsils—					
Tonsilitis	—	265	—	265	—
Pharyngitis...	—	8	—	8	—
110. Affections of the Œsophagus ..	—	—	—	—	—
111. A.—Ulcer of the Stomach ...	3	87	6	90	1
B.—Ulcer of the Duodenum .	—	40	6	40	—
112. Other affections of the Stomach—					
Gastritis	1	117	1	118	1
Dyspepsia, etc.	2	243	—	245	3
113. Diarrhœa and Enteritis—Under two years	3	160	38	163	—
114. Diarrhœa and Enteritis—					
Two years and over ...	12	497	67	509	2
Colitis	3	115	15	118	—
Ulceration	—	1	—	1	—
114a Sprue	—	—	—	—	—
115. Ankylostomiasis	64	3,058	132	3,122	24
Total carried forward ...	305	17,407	1,216	17,712	203

DISEASES	Remaining in Hospital at end of 1931	Yearly Total: Admissions	Yearly Total: Deaths	Total cases treated	Remaining in Hospital at end of 1932
Brought forward ..	305	17,407	1,216	17,712	203
VI.—*Diseases of the Digestive System*—(Contd.)					
116. Diseases due to Intestinal Parasites—					
(*a*) Cestodia (Tænia)	—	—	—	—	—
(*b*) Trematodo (Flukes)	—	—	—	—	—
(*c*) Nematoda (other than ankylostoma)—					
Ascaris	2	155	6	157	4
Trichocephalus dispar .	—	6	—	6	—
Trichinia	—	—	—	—	—
Dracunculus	—	—	—	—	—
Strongylus	—	7	—	7	—
Oxyuris	—	—	—	—	—
(*d*) Coccidia	—	—	—	—	—
(*e*) Other parasites ..	1	36	4	37	1
(*f*) Unclassified	2	39	1	41	—
117. Appendicitis	11	348	2	359	6
118. Hernia	1	160	2	161	3
119. A.—Affections of the Anus, Fistula, &c.	1	119	—	120	1
B.—Other affections of the Intestines—					
Enteroptosis	—	—	—	—	—
Constipation	—	59	—	59	1
Other affections	1	3	2	4	—
120 Acute yellow atrophy of the Liver ..	—	1	1	1	—
121 Hydatid of the Liver	—	—	—	—	—
122 Cirrhosis of the Liver	—	—	—	—	—
(*a*) Alcoholic	—	7	1	7	—
(*b*) Other forms	1	52	5	53	—
123. Biliary Calculus	—	10	—	10	—
124. Other affections of the Liver—					
Abscess...	—	30	4	30	1
Hepatitis	3	68	9	71	—
Cholecystitis	—	52	5	52	1
Jaundice	—	12	3	12	1
125. Diseases of the Pancreas	—	—	—	—	—
126. Peritonitis (of unknown cause) ...	—	10	8	10	—
127. Other affections of the Digestive System	1	58	6	59	2
Total carried forward ...	329	18,639	1,275	18,968	224

DISEASES	Remaining in Hospital at end of 1931	Yearly Total: Admissions	Yearly Total: Deaths	Total cases treated	Remaining in Hospital at end of 1932
Brought forward ..	329	18,639	1,275	18,968	224
VII.—*Diseases of the Genito-urinary System (non-Venereal)*					
128. Acute Nephritis	12	353	68	365	7
129. Chronic Nephritis	—	324	47	324	5
130. A.—Chyluria	—	1	—	1	—
B.—Schistosomiasis	3	78	—	81	2
131. Other affections	—	—	—	—	—
Pyelitis, etc.	1	53	9	54	—
132. Urinary Calculus	—	23	2	23	2
133. Diseases of the Bladder—					
Cystitis	2	147	7	149	1
Other	—	34	—	34	—
134. Diseases of the Urethra—					
(*a*) Stricture	—	51	—	51	—
(*b*) Other	2	87	1	89	3
135. Diseases of the Prostate—					
Hypertrophy	—	3	1	3	—
Prostatitis	1	19	—	20	—
136. Diseases (non-Venereal) of the Genital Organs of Man—					
Epididymitis	1	20	—	21	—
Orchitis	2	93	—	95	1
Hydrocele	4	210	3	214	2
Ulcer of Penis...	—	20	—	20	—
Other Diseases	2	92	—	94	—
137. Cysts or other affections non-malignant Tumours of the Ovaries	—	17	—	17	1
138. Salpingitis	4	83	1	87	1
Abscess of the Pelvis	—	17	1	17	—
139. Uterine Tumours (non-malignant)	—	18	—	18	—
140. Uterine Hæmorrhage (non-puerperal)	—	38	1	38	—
141. A.—Metritis	1	49	2	50	2
B.—Other affections of the Female Genital Organs—					
Displacements of Uterus ...	—	81	—	81	2
Menorrhagia	—	—	—	—	—
Amenorrhœa	—	18	—	18	—
Dismenorrhœa	—	15	—	15	—
Leucorrhœa	—	33	—	33	—
Fibroma of Uterus	—	—	—	—	—
Unclassified	1	32	2	33	—
Total carried forward ..	365	20,648	1,420	21,013	253

DISEASES	Remaining in Hospital at end of 1931	Yearly Total: Admissions	Yearly Total: Deaths	Total cases treated	Remaining in Hospital at end of 1932
Brought forward ...	365	20,648	1,420	21,013	253
VII.—*Diseases of the Genito-urinary System (non-Venereal)*—(Contd.)					
142. Diseases of the Breast (non-puerperal)—					
Mastitis	—	41	—	41	—
Abscess	1	149	—	150	3
Unclassified	—	4	—	4	—
VIII.—*Puerperal State*					
143. A.—Normal Labour	7	689	—	696	3
B.—Accidents of Pregnancy—					
(*a*) Abortion	...	119	1	119	1
(*b*) Ectopic Gestation	...	5	—	5	—
(*c*) Other accidents of Pregnancy	...	44	5	44	—
144. Puerperal Hæmorrhage	...	2	2	2	—
145. Other accidents of Parturition ...	...	19	—	19	—
146. Puerperal Septicæmia	2	24	9	26	3
147. Phlegmasia Dolens	...	1	—	1	—
148. Puerperal Eclampsia	...	5	1	5	—
149. Sequelæ of Labour	..	18	1	18	—
150. Puerperal affections of the Breast...	2	51	—	53	4
150B. Puerperal fever, Gestatio, etc. ...	11	194	12	205	7
IX.—*Affections of the Skin and Cellular Tissues*					
151. Gangrene	1	75	15	76	3
152. Boil.	—	44	—	44	—
Carbuncle	1	97	2	98	—
153. Abscess—					
Whitlow	7	143	5	150	2
Cellulitis	11	511	21	522	22
Unclassified	39	1,472	26	1,511	50
154. A.—Tinea	—	2	—	2	—
B.—Scabies	4	399	—	403	3
155. Other Diseases of the Skin—					
Brythema	—	1	—	1	—
Urticaria	1	9	—	10	—
Eczema	3	124	—	127	1
Herpes	1	8	—	9	—
Psoriasis	1	14	—	15	—
Elephantiasis	2	18	1	20	—
Myiasis	—	—	—	—	—
Chigœs	—	—	—	—	—
Cutaneous Leishmaniasis ...	—	—	—	—	—
Unclassified	12	350	3	362	9
Total carried forward ...	471	25,280	1,524	25,751	364

DISEASES	Remaining in Hospital at end of 1931	Yearly Total: Admissions	Yearly Total: Deaths	Total cases treated	Remaining in Hospital at end of 1932
Brought forward ..	471	25,280	1,524	25,751	364
X.—*Diseases of the Bones and Organs of Locomotion (other than Tuberculous)*					
156. Diseases of Bones—					
Osteitis	2	41	1	43	1
157. Diseases of Joints—					
Arthritis	2	114	11	116	2
Synovitis	—	31	—	31	2
Other Diseases	1	—	—	1	—
158. Other Diseases of Bones or Organs of Locomotion	6	60	3	66	3
XI.—*Malformations*					
159. Malformations—					
Hydrocephalus	—	6	—	6	—
Hypospadias	—	1	—	1	—
Spina Bifida, &c.	—	6	—	6	—
Unclassified	1	2	1	3	—
XII.—*Diseases of Infancy*					
160. Congenital Debility	—	31	20	31	—
161. Premature Birth	—	70	26	70	—
162. Other affections of Infancy ..	—	9	5	9	—
163. Infant neglect (infants of three months or over)	—	3	2	3	—
Marasmus	—	1	1	1	—
XIII.—*Affections of Old Age*					
164. Senility—					
Senile Dementia, etc.	1	16	29	161	1
XIV—*Affections produced by External Causes*					
165. Suicide by Poisoning	—	1	1	1	—
166. Corrosive Poisoning (intentional) ..	—	3	1	3	—
167. Suicide by Gas Poisoning	—	—	—	—	—
168. Suicide by Hanging or Strangulation	—	—	—	—	—
Total carried forward ..	484	25,819	1,625	26,303	373

DISEASES	Remaining in Hospital at end of 1931	Yearly Total: Admissions	Yearly Total: Deaths	Total cases treated	Remaining in Hospital at end of 1932
Brought forward ...	484	25,819	1,625	26,303	373
XIV.—*Affections produced by External Causes.*—(Contd.)					
169. Suicide by Drowning	—	2	—	2	—
170. Suicide by Firearms	—	—	—	—	—
171. Suicide by cutting or stabbing Instruments	—	1	—	1	—
172. Suicide by jumping from a height	—	—	—	—	—
173. Suicide by crushing	—	—	—	—	—
174. Other Suicides	—	1	—	1	—
175. Food Poisoning	—	3	1	3	—
Botulism	—	—	—	—	—
176. Attacks of poisonous—					
Snake Bite	—	—	—	—	—
Insect Bite	—	—	—	—	—
Dog bite	—	1	—	1	—
177. Other accidental Poisonings ...	—	13	1	13	—
178. Burns (by fire)	4	59	12	63	1
179. Burns (other than by fire) ...	2	36	9	38	2
180. Suffocation (accidental)	—	—	—	—	—
181. Poisoning by Gas (accidental) ...	—	—	—	—	—
182. Drowning (accidental)	—	—	—	—	—
183. Wounds (by Firearms, war excepted)	—	3	—	3	—
184. Wounds (by cutting or stabbing Instruments)	7	690	8	697	10
185. Wounds (by fall)	1	101	5	102	6
186. Wounds (in mines or quarries) ...	—	—	—	—	—
187. Wounds (by machinery)	—	4	—	4	—
188. Wounds (by crushing *e. g.* railway accidents, &c.)	—	50	5	50	1
189. Injuries inflicted by animals, Bites, Kicks, etc.	3	85	—	88	1
190. Wounds inflicted on Active Service	—	—	—	—	—
191. Executions of civilians by belligerents	—	—	—	—	—
192. A—Over Fatigue	—	—	—	—	—
B—Hunger or Thirst	—	2	—	2	—
193. Exposure to cold, Frost bite, &c, ..	—	—	—	—	—
194. Exposure to heat —					
Heatstroke	—	—	—	—	—
Sunstroke	—	—	—	—	—
Total carried forward ...	501	26,870	1,666	27,371	394

DISEASES	Remaining in Hospital at end of 1931	Year y Total		Total cases treated	Remaining in Hospital at end of 1932
		Admissions	Deaths		
Brought forward ..	501	26,870	1,666	27,371	394
XIV.—*Affections produced by External Causes.*—(Contd.)					
195. Lightning Stroke	—	—	—	—	—
196. Electric Shock	—	—	—	—	—
197. Murder by Firearms	—	—	—	—	—
198. Murder by cutting or stabbing Instruments	—	—	—	—	—
199. Murder by other means	—	—	—	—	—
200. Infanticide (Murder of an infant under one year)	—	—	—	—	—
201. A—Dislocation	—	44	—	44	—
B—Sprain	—	35	—	35	1
C—Fractu e	18	281	14	299	21
202. Other external Injuries	12	329	1	341	4
203. Death by violence of unknown cause (Rupture of lungs)... ...	—	1	1	1	—
XV.—*Ill-Defined Diseases*					
204. Sudden Deaths [cause unknown]—	—	—	—	—	—
205. A.—Diseases not already specified or ill-defined—	43	185	16	228	69
Ascites	2	51	—	53	1
Œdema	1	12	1	13	—
Debility	—	2	—	2	—
Asthenia	1	12	—	13	—
Diarrhœa	—	3	1	3	—
Shock	—	4	4	4	—
Hyperpyrexia	—	9	—	9	—
B.—Malingering...	1	55	—	56	—
Total	579	27,893	1,704	28,472	490

SUMMARY

DISEASES	Remaining in Hospital at end of 1931	Yearly Total		Total cases treated	Remaining in Hospital at end of 1932
		Admissions	Deaths		
I.—Epidemic, Endemic and Infectious Diseases	132	8,258	470	8,390	107
II.—General Diseases not mentioned above	16	855	56	871	17
III.—Affections of the Nervous System and Organs of the Senses	23	934	47	957	13
IV.—Affections of the Circulatory System	16	784	82	800	19
V.—Affections of the respiratory System	25	1,723	296	1,748	13
VI.—Diseases of the Digestive System..	117	6,085	324	6,202	55
VII.—Diseases of the Genito-Urinary System (*non-venereal*)	37	2,203	145	2,240	32
VIII.—Puerperal State	22	1,171	3	1,193	18
IX.—Affection of the Skin and Cellular Tissues	83	3,267	73	3,350	90
X.—Diseases of Bones and organs of Locomotion (*other than Tuberculous*)	11	246	15	257	8
XI.—Malformations	1	15	1	16	—
XII.—Diseases of Infancy	—	114	54	114	—
XIII.—Affections of Old Age	1	160	29	161	1
XIV.—Affections produced by external Causes	47	1,745	59	1,792	47
XV.—Ill-defined Diseases	48	333	22	381	70
Total	579	27,893	1,704	28,472	490

RETURN OF BIRTHS

	Number	Deaths
Born alive at term	564	20
Prematurely born	80	28
Still born	116	116
Total ..	760	164

RETURN OF SURGICAL OPERATIONS

Operations	Number	Deaths
Tumours	42	8
Evacuation of abscesses ..	2,775	69
Operations on :—		
Blood Vessels	10	—
Lymphatic Glands... ...	109	—
Skin and Subcutaneous Tissues	464	3
Bones	113	7
Nerves	7	—
Joint	45	9
Muscles and Tendons ...	45	—
Skull and Brain	25	4
Eye	184	—
Ear	39	1
Head and Face	87	4
Chest	32	2
Abdominal Cavity... ...	615	38
Spleen	8	2
Rectum and Anus	157	1
Urinary system	67	7
Male Generative Organs ...	322	5
Female Generative Organs	166	8
Amputation	91	5
Obstetric Operations	95	2
Other Operations	1,224	2
Total ...	6,722	177

APPENDIX IX

RETURN OF DISEASES (OUT PATIENTS) FOR THE YEAR 1932

DISEASES	Cases		Attendances	
	Male	Female	Male	Female
I.—*Epidemic, Endemic and Infectious Diseases*				
1. Enteric Group—				
(*a*) Typhoid Fever	3	2	3	2
(*b*) Paratyphoid A	—	—	—	—
(*c*) Paratyphoid B	—	—	—	—
(*d*) Type not defined	—	—	—	—
2. Typhus	—	—	—	—
3. Relapsing Fever	—	—	—	—
4. Undulant Fever	—	—	—	—
5. Malaria—				
(*a*) Tertian	11,150	10,126	13,786	13,288
(*b*) Quartan	3,012	3,998	3,435	4,365
(*c*) Aestivo-autumnal	1,016	1,182	1,129	1,300
(*d*) Cachexia	1,752	1,875	2,182	2,312
(*e*) Blackwater	5	2	5	2
(*f*) Unclassified	11,101	12,032	13,802	14,479
6. Small-pox—				
Alastrim	—	—	—	—
7. Measles	—	—	—	—
8 Scarlet Fever	—	—	—	—
9. Whooping Cough	39	38	53	49
10. Diphtheria	4	4	5	12
11. Influenza	11,155	9,577	12,712	11,021
12. Miliary Fever	—	—	—	—
13. Mumps	3	3	3	3
14. Cholera	—	—	—	—
15. Epidemic diarrhœa	215	156	318	241
16. Dysentery—				
(*a*) Amœbic	1,732	1,319	3,264	2,223
(*b*) Bacillary	202	184	301	249
(*c*) Undefined or due to other causes	833	584	1,003	694
17. Plague—				
(*a*) Bubonic	—	—	—	—
(*b*) Pneumonic	—	—	—	—
(*c*) Septicæmic	—	—	—	—
(*d*) Undefined	—	—	—	—
18. Yellow Fever	—	—	—	—
Total carried forward	42,222	41,082	52,001	50,240

DISEASES	Cases		Attendances	
	Male	Female	Male	Female
Brought forward	42,222	41,082	52,001	50,240
I.—*Epidemic, Endemic and Infectious Diseases*—(Contd.)				
19. Spirochætosis—				
ictero-hæmorrhagica	—	—	—	—
20. Leprosy	—	1	—	1
21. Erysipelas	11	11	11	11
22. Acute Poliomyelitis	—	—	—	—
23. Encephalitis Lethargica	—	—	—	—
24. Epidemic Cerebro-spinal Fever ...	—	—	—	—
25. Other Epidemic Diseases—				
(*a*) Rubeola (German Measles)...	—	—	—	—
(*b*) Varicella (Chicken-pox) ...	—	2	—	2
(*c*) Kala-azar	—	—	—	—
(*d*) Phlebotomus Fever	—	—	—	—
(*e*) Dengue	—	—	—	—
(*f*) Epidemic Dropsy	—	—	—	—
(*g*) Yaws	—	—	—	—
(*h*) Trypanosomiasis	—	—	—	—
26. Glanders	2	3	2	5
27. Anthrax	16	7	19	8
28. Rabies	—	—	—	—
29. Tetanus	2	3	2	3
30. Mycosis	—	—	—	—
31. Tuberculosis Pulmonary and Pharyngeal	1,824	1,098	2,211	1,308
32. Tuberculosis of the Meninges or Central Nervous System ...	20	29	46	49
33. Tuberculosis of the Intestine or Peritoneum	8	8	8	8
34. Tuberculosis of the Vertebral Column	2	2	2	2
35. Tuberculosis of Bones and Joints...	2	1	2	1
36. Tuberculosis of other organs—				
(*a*) Skin or Subcutaneous Tissue (Lupus)	2	2	2	2
(*b*) Bones	—	—	—	—
(*c*) Lymphatic System	11	14	13	37
(*d*) Genito-Urinary	2	—	2	—
(*e*) Other Organs	—	—	—	—
37. Tuberculosis desseminated—				
(*a*) Acute	—	—	—	—
(*b*) Chronic	—	—	—	—
Total carried forward ...	44,124	42,263	54,321	51,677

DISEASES	Cases		Attendances	
	Male	Female	Male	Female
Brought forward	44,124	42,263	54,321	51,677
I.—*Epidemic, Endemic and Infectious Diseases*—(Contd.)				
38. Syphilis—				
(*a*) Primary	—	—	—	—
(*b*) Secondary	59	25	90	45
(*c*) Tertiary	100	60	404	248
(*d*) Hereditary	43	35	68	77
(*e*) Period not indicated... ..	276	146	1,983	895
(*f*) Unclassified	66	45	102	107
39. Soft Chancre	62	3	121	3
40. A.—Gonorhœa and its complications	1,028	114	3,837	302
B.— Gonorrhœal Ophthalmia ...	6	4	6	14
C.— Gonorrhœal Arthritis ...	33	3	41	3
D.— Gonorrhœal Venereum ...	—	2	—	2
41. Septicæmia...	1	—	1	—
42. Other Infectious Diseases—				
(*a*) Trypanosomiasis	21	21	37	27
(*b*) Filariasis	—	—	—	—
II.—*General Diseases not mentioned above*				
43. Cancer or other malignant Tumours of the Buccal Cavity ...	—	1	—	1
44. Cancer or other malignant Tumours of the Stomach or Liver ...	1	—	1	—
45. Cancer or other malignant Tumours of the Peritoneum, Intestines, Rectum	—	—	—	—
46. Cancer or other malignant Tumours of the Female Genital Organs ...	—	1	—	1
47. Cancer or other malignant Tumours of the Breast	—	6	—	6
48. Cancer or other malignant Tumours of the Skin	24	10	31	11
49. Cancer or other malignant Tumours of Organs not specified	—	1	—	1
50. Tumours non-malignant	3	2	3	2
51. Acute Rheumatism	967	823	1,218	1,200
52. Chronic Rheumatism	836	757	1,201	1,118
53. Scurvy (including Barlow's Disease)	—	—	—	—
Total carried forward ...	47,650	44,322	63,465	55,740

DISEASES	Cases		Attendances	
	Male	Female	Male	Female
Brought forward	47,650	44,322	63,465	55,740
II—*General Diseases not mentioned above*—(Contd)				
54. Pellagra	—	—	—	—
55. Beri Beri	2	—	2	—
56. Rickets	7	4	12	6
57. Diabetes (not including Insipidus)	34	39	44	54
58. Anæmia—				
(*a*) Pernicious	115	135	208	260
(*b*) Other Anæmias and Chlorosis	6.5	774	768	965
59. Diseases of the Pituitary Body ...	—	—	—	—
60. Diseases of the Thyroid Gland—				
(*a*) Exophthalmic Goitre ...	1	—	1	—
(*b*) Other Diseases of the Thyroid Glands, Myxœdema ...	13	8	13	9
61. Diseases of the Para-Thyroid Glands	—	—	—	—
62. Diseases of the Thymus	—	—	—	—
63. Diseases of the Supra-Renal Glands	—	—	—	—
64. Diseases of the Spleen	288	167	357	211
65. Leukœmia—				
(*a*) Leukœmia	—	—	—	—
(*b*) Hodgkin's Diseases	—	—	—	—
66. Alcoholism...	1	—	1	—
67. Chronic poisoning by mineral substances (lead, morcury, &c.)..	—	—	—	—
68. Chronic poisoning by organic substances (Morphia, Cocaine,&c.)	—	—	—	—
69. Other General Diseases—				
Auto-intoxication ...	—	—	—	—
Purpura-Hæmorrhagica ...	—	—	—	—
Hæmophilia	—	—	—	—
Diabetes Insipidus	4	2	4	2
Debility	8	5	8	14
Unclassified	586	292	679	349
III—*Affections of the Nervous System and organs of the senses*				
70. Encephalitis (not including Encephalitis Lethargica) ...	—	—	—	—
71. Meningitis (not including Tuberculous Meningitis or Cerebro-spinal Meningitis)	1	1	1	1
Total carried forward .	49,320	45,749	65,563	57,611

DISEASES	Cases		Attendances	
	Male	Female	Male	Female
Brought forward	49,320	45,749	65,563	57,611
III.—*Affections of the Nervous System and organs of the senses*—(Contd.)				
72. Locomotor Ataxia...	1	--	1	—
73. Other affection of the Spinal Cord	36	75	84	127
74. Apoplexy	1	—	1	—
(*a*) Hæmorrhage	14	14	16	16
(*b*) Embolism	—	—	—	—
(*c*) Thrombosis	1	—	3	—
75. Paralysis—				
(*a*) Hemiplegia	61	40	71	45
(*b*) Other Paralyses	34	16	51	34
76. General Paralysis of the Insane ...	—	—	—	—
77. Other forms of Mental Alienation	5	1	10	5
78. Epilepsy	240	114	330	186
79. Eclampsia, Convulsions (non-puerperal) 5 years over	8	6	10	8
80. Infantile convulsions	103	58	110	80
81. Chorea	1	—	1	—
82. A.—Hysteria	21	42	37	57
B.—Neuritis	80	114	97	136
C.—Neurasthenia	40	51	70	91
Vertigo	4	1	7	1
Neuralgia	61	66	70	78
Wryneck	1	—	3	—
Headache	18	17	20	22
83. Cerebral softening...	14	21	18	26
84. Other affections of the Nervous System, such as paralysis Agitans	254	324	303	359
85. Affections of the Organs of Vision–				
(*a*) Diseases of the eye	88	75	100	92
(*b*) Conjunctivitis	503	413	714	579
(*c*) Trachoma	3	1	5	2
(*d*) Tumours of the eye... ...	8	9	11	11
(*e*) Other affections of the eye...	361	379	467	517
86. Affections of the Ear or Mastoid Sinus	665	528	869	707
Frontal Sinusitis	—	2	—	3
IV—*Affections of the Circulatory System*				
87. Pericarditis	78	85	90	96
88. Acute Endocarditis or Myocarditis	71	144	79	160
89. Angina Pectoris	8	3	9	3
Total carried forward ..	52,103	48,348	69,220	61,052

DISEASES	Cases		Attendances	
	Male	Female	Male	Female
Brought forward	52,103	48,348	69,220	61,052
IV.—*Affections of the Circulatory System*—(Contd.)				
90. Other Diseases of the Heart—				
(*a*) Vulvular—				
Mitral	176	218	218	282
Aortic	40	52	52	64
Tricuspid	—	—	—	—
Pulmonary	5	9	13	23
(*b*) Myocarditis	66	56	88	90
Unclassified	35	67	48	90
91. Diseases of the Arteries—				
(*a*) Aneurism	—	—	—	—
(*b*) Arterio-Sclorosis	256	277	288	339
(*c*) Other Diseases	62	75	82	99
92. Embolism or Thrombosis (non-cerebral)...	2	1	2	2
93. Diseases of the Veins—				
Hæmorrhoids	271	98	304	113
Varicose Veins	13	12	20	19
Phlebitis	39	39	52	54
Unclassified	—	1	—	1
94. Diseases of the Lymphatic System—				
Lymphagitis	65	55	86	72
Lymphadenitis, Bubo (non-specific)	38	14	41	14
95. Hæmorrhage of undetermined cause	11	11	11	11
96. Other affections of the Circulatory System	110	183	160	262
V—*Affections of the Respiratory System*				
97. Diseases of the Nasal Passages—				
Adenoids	8	3	8	3
Polipus	12	20	15	28
Rhinitis	30	37	37	43
Coryza	94	82	99	92
Unclassified	2	6	2	9
98. Affections of the Larynx—				
Laryngitis	71	100	79	111
Other affections	4	12	7	19
99. Bronchitis—				
(*a*) Acute	982	1,282	1,135	1,375
(*b*) Chronic	585	412	858	604
(*c*) Unclassified	309	307	407	399
Total carried forward ..	55,389	51,777	73,332	65,270

DISEASES	Cases		Attendances	
	Male	Female	Male	Female
Brought forward	55,289	51,777	73.332	65,270
V.—*Affections of the Respiratory System*—(Contd)				
100. Broncho-Pneumonia	33	29	42	46
101. Pneumonia—				
(*a*) Lobar	29	13	35	16
(*b*) Unclassified	284	166	433	255
102. Pleurisy, Emphysema	36	27	45	36
103. Congestion of the Lungs	7	4	7	4
104. Gangrene of the Lungs	—	—	—	—
105. Asthma	933	549	1,273	811
106. Pulmonory Emphysema	9	4	11	4
107. Other affections of the Lungs—				
Pulmonary Spirochætosis ...	11	7	16	23
Unclassified	24	29	27	40
VI—*Diseases of the Digestive System*				
108. A.—Diseases of teeth or gums—				
Caries, Pyorrhæa, &c. ...	4,545	3,690	4,837	4,018
B —Other affections of the Mouth–				
Stomatitis	195	260	232	305
Glossitis &c.	18	19	23	30
109. Affections of the Pharynx or Tonsils—				
Tonsilitis	202	236	255	308
Pharyngitis	74	137	80	138
Other affection	—	1	—	1
110. Affections of the Œsophagus ..	—	—	—	—
111. A.—Ulcer of the Stomach ..	23	10	28	13
B.—Ulcer of the Duodenum ...	3	1	3	1
112. Other affections of the Stomach—				
Gastritis	862	1,081	1,040	1,300
Dyspepsia, etc.	1,341	1,304	1,724	1,739
113. Diarrhœa and Enteritis—				
Under two years	500	462	626	593
114. Diarrhœa and Enteritis—				
Two years and over	1,241	880	1,551	1,150
Colitis	161	141	180	175
Ulceration	24	13	32	18
114a Sprue	—	—	—	—
115. Ankylostomiasis	10,039	9,374	13,663	13,267
Total carried forward ...	75,983	70,214	99,495	89,561

DISEASES	Cases		Attendances	
	Male	Female	Male	Female
Brought forward	75,983	70,214	99,495	89,561
VI.—*Diseases of the Digestive System*—(Contd.)				
116. Diseases due to Intestinal Parasites—				
(*a*) Cestodia (Tænia) ..	2	1	2	1
(*b*) Trematodo (Flukes) .	—	—	—	—
(*c*) Nematoda (other than ankylostoma)—				
Ascaris	2,782	2,964	3,493	3,624
Trichocephalus dispar ..	1	—	1	—
Trichinia	1	—	1	—
Dracunculus...	—	—	—	—
Strongylus	—	—	—	—
Oxyuris	112	102	237	221
(*d*) Coccidia	—	—	—	—
(*e*) Other parasites	75	125	108	164
(*f*) Unclassified	183	257	224	308
117. Appendicitis	64	72	81	90
118. Hernia	111	13	122	18
119. A.—Affections of the Anus, Fistula, &c.	141	88	151	94
B.—Other affections of the Intestines—				
Enteroptosis	9	4	10	6
Constipation	914	1,055	1,189	1,352
Unclassified	99	97	147	153
120. Acute yellow atrophy of the Liver	1	—	1	—
121. Hydatid of the Liver	—	—	—	—
122. Cirrhosis of the Liver	—	—	—	—
(*a*) Alcoholic	7	—	7	—
(*b*) Other forms...	32	13	36	14
123. Biliary Calculus	7	4	9	9
124. Other affections of the Liver—				
Abscess	14	12	17	13
Hepatitis	166	81	215	115
Cholecystitis	25	29	28	33
Jaundice	63	31	75	43
Unclassified	9	8	9	13
125. Diseases of the Pancreas	1	3	1	3
126, Peritonitis (of unknown cause) ...	1	2	5	5
127. Other affections of the Digestive-System	602	386	760	572
Total carried forward ...	81,405	75,561	106,424	96,412

DISEASES	Cases		Attendances	
	Male	Female	Male	Female
Brought forward	81,405	75,561	106,424	96,412
VII.—*Diseases of the Genito-urinary System (non-Venereal)*				
128. Acute Nephritis	329	275	400	342
129. Chronic Nephritis	150	100	205	157
130. A.—Chyluria	10	3	15	3
B.—Schistosomiasis	110	67	456	283
131. Other affections—				
Pyelitis, etc.	60	67	85	85
132. Urinary Calculus	4	1	4	1
133. Diseases of the Bladder—				
Cystitis	193	155	248	199
Unclassified	4	2	7	3
134. Diseases of the Urethra—				
(*a*) Stricture	51	23	52	24
(*b*) Other	21	4	22	4
135. Diseases of the Prostate—				
Hypertrophy	5	—	7	—
Prostatitis	22	3	22	3
Unclassified	1	—	1	—
136. Diseases (non-Venereal) of the Genital Organs of Man—				
Epididymitis	36	—	42	—
Orchitis	204	—	224	—
Hydrocele	166	—	179	—
Ulcer of Penis	20	—	22	—
Unclassified	38	—	45	—
137. Cysts or other non-malignant Tumours of the Ovaries ...	—	1	—	1
138. Salpingitis—				
Abscess of the Pelvis... ..	—	98	—	143
139. Uterine Tumours (non-malignant)..	—	—	—	—
140. Uterine Hæmorrhage (non-puerperal)	—	79	—	90
141. A.—Metritis	—	55	—	63
B.—Other affections of the Female Genital Organs—				
Displacements of Uterus ...	—	3	—	3
Amenorrhœa	—	348	—	378
Dismenorrhœa	—	223	—	272
Leucorrhœa	—	454	—	572
Unclassified	—	104	—	147
Total carried forward ...	82,829	77,626	108,430	99,185

DISEASES	Cases		Attendances	
	Male	Female	Male	Female
Brought forward	82,829	77,626	108,460	99,185
VII.—*Diseases of the Genito-urinary System (non-venereal)*—(Contd.)				
142. Diseases of the Breast (non-puerperal)—				
Mastitis	—	168	—	260
Abscess	9	267	39	483
Unclassified	—	34	—	41
VIII.—*Puerperal State*				
143. A.—Normal Labour	—	223	—	229
Pregnancy	—	26	—	26
B.—Accidents of Pregnancy—				
(*a*) Abortion	—	31	—	31
(*b*) Ectopic Gestation	—	—	—	—
(*c*) Other accidents of Pregnancy	—	33	—	54
144. Puerperal Hæmorrhage	—	1	—	1
145. Other accidents of Parturition ...	—	5	—	5
146. Puerperal Septicæmia	—	4	—	4
147. Phlegmasia Dolens	—	—	—	—
148. Puerperal Eclampsia	—	—	—	—
149. Sequelæ of Labour	—	—	—	—
150. Puerperal affections of the Breast..	—	—	—	—
IX.—*Affections of the Skin and Cellular Tissues*				
151. Gangrene, etc.	52	34	58	40
152. Boil—				
Carbuncle	295	209	353	244
153. Abscess—				
Whitlow	254	182	321	224
Cellulitis	2,130	1,573	3,243	1,982
Unclassified	578	406	1,150	792
154. A.—Tinea	—	—	—	—
B.—Scabies	3,054	2,067	3,509	2,748
155. Other Diseases of the Skin—				
Brythema	2	2	2	2
Urticaria	—	—	—	—
Eczema	915	591	1,129	724
Herpes	87	78	97	85
Psoriasis	100	91	132	115
Elephantiasis	35	22	37	28
Myiasis	2	4	2	4
Chigœs	—	—	—	—
Cutaneous Leishmaniasis ...	—	—	—	—
Unclassified	133	126	225	227
X.—*Diseases of the Bones and Organs of Locomotion (other than Tuberculous)*				
156. Diseases of Bones—				
Osteitis, etc.	2	1	2	1
Total carried forward ...	90,477	83,604	118,759	107,535

DISEASES	Cases		Attendances	
	Male	Female	Male	Female
Brought forward	90,477	83,604	110,759	107,535
X.—*Diseases of the Bones and Organs of Locomotion (other than Tuberculous)*—(Contd.)				
157. Diseases of Joints—				
Arthritis	129	111	165	129
Synovitis	29	12	33	14
Unclassified	2	1	2	1
158. Other Diseases of Bones or Organs of Locomotion	32	13	41	23
XI.—*Malformations*				
159. Malformations—				
Hydrocephalus	2	—	2	—
Hypospadias	—	—	—	—
Spina Bifida, &c.	—	—	—	—
XII.—*Diseases of Infancy*				
160. Congenital Debility	29	25	30	28
161. Premature Birth	—	4	—	4
162. Other affections of Infancy ...	31	15	38	21
163. Infant neglect (infants of three months or over)	—	3	—	3
XIII.—*Affections of Old Age*				
164. Senility—				
Senile Dementia, etc. ...	173	211	205	286
XIV—*Affections produced by External Causes*				
165. Suicide by Poisoning	—	1	—	1
166. Corrosive Poisoning (intentional) ..	—	—	—	—
167. Suicide by Gas Poisoning	—	—	—	—
168. Suicide by Hanging or Strangulation	—	—	—	—
169. Suicide by Drowning	—	—	—	—
170. Suicide by Firearms	—	—	—	—
171. Suicide by cutting or stabbing Instruments	—	—	—	—
172. Suicide by jumping from a height	—	—	—	—
173. Suicide by crushing	—	—	—	—
174. Other Suicides	—	—	—	—
175. Food Poisoning—				
Botulism	—	—	—	—
176. Attacks of poisonous—				
Snake Bite	—	—	—	—
Insect Bite	2	2	4	7
177. Other accidental Poisonings ...	1	—	1	—
178. Burns (by fire)	38	27	80	32
179. Burns (other than by fire) ...	20	15	21	17
180. Suffocation (accidental)	—	—	—	—
181. Poisoning by Gas (accidental) ...	—	—	—	—
Total carried forward ..	90,965	84,044	119,381	108,101

DISEASES	Cases		Attendances	
	Male	Female	Male	Female
Brought forward	90,965	84,044	119,381	108,101
XIV—*Affections caused by External Causes*—(Contd)				
182. Drowning (accidental)	—	—	—	—
183. Wounds (by Firearms, war excepted)	1	—	1	—
184 Wounds (by cutting or stabbing Instruments)	722	324	931	432
185. Wounds (by fall)	194	146	291	238
186. Wounds (in mines or quarries) .	—	—	—	—
187. Wounds (by machinery)	3	1	3	1
188. Wounds (by crushing *e.g.* railway accidents, &c.)	9	—	11	—
189. Injuries inflicted by animals, Bites, Kicks, &c.	162	139	207	172
190. Wounds inflicted on Active Service	—	—	—	—
191. Executions of civilians by belligerents	—	—	—	—
192. A—Over Fatigue	—	1	—	1
B—Hunger or Thirst ...	—	—	—	—
193. Exposure to cold, Frost bite, &c...	—	—	—	—
194. Exposure to heat—				
Heatstroke	—	—	—	—
Sunstroke	—	—	—	—
195. Lighting Stroke	—	—	—	—
196. Electric Shock	—	—	—	—
197. Murder by Firearms	—	—	—	—
198 Murder by cutting or stabbing Instruments	—	—	—	—
199. Murder by other means	—	—	—	—
200. Infanticide (Murder of an infant under one year)	—	—	—	—
201. A—Dislocation	21	14	21	15
B—Sprain	37	27	51	36
C—Fracture	56	34	83	46
202. Other external Injuries	1,248	390	1,569	568
203. Death by violence of unknown cause	—	—	—	—
XV—*Ill-Defined Diseases*				
204. Sudden Deaths (cause unknown)—	—	—	—	—
205. A—Diseases not already specified or ill-defined—				
Ascites	30	23	44	30
Œdema	49	35	64	40
Asthenia...	22	3	27	4
Shock	—	—	—	—
Hyperpyrexia	—	—	—	—
Flatulence, Biliousness&c.	32	45	32	45
B—Malingering	5	2	18	2
Total	93,556	85,228	122,734	109,731

SUMMARY

DISEASES	Cases		Attendances	
	Male	Female	Male	Female
I.—Epidemic, Endemic and Infectious Diseases ..	45,819	42,721	61,011	53,400
II.—General Diseases not mentioned above	3,500	3,027	4,551	4,210
III.—Affections of the Nervous System and Organs of the Senses	2,627	2,368	3,480	3,183
IV.—Affections of the Circulatory System	1,346	1,400	1,643	1,794
V.—Affections of the respiratory System ..	3,463	3,089	4,536	3,918
VI.—Diseases of the Digestive System ...	24,650	22,956	31,203	29,907
VII.—Diseases of the Genito-Urinary System (*non-venereal*) ..	1,433	2,534	2,075	3,557
VIII.—Puerperal State... ...	—	323	—	350
IX.—Affections of the Skin and Cellular Tissues ...	7,637	5,185	10,258	7,215
X.—Diseases of Bones and organs of Locomotion (*other than Tuberculous*)	194	138	243	168
XI.—Malformations	2	—	2	—
XII.—Diseases of Infancy ..	60	47	68	56
XIII.—Affections of Old Age ..	173	211	205	286
XIV.—Affections produced by external Causes	2,514	1,121	3,274	1,566
XV.—Ill-defined Diseases .	138	108	185	121
Total	93,556	85,228	122,734	109,731

APPENDIX X

DIET SCALE FOR GENERAL HOSPITALS.

Articles		European	Creole	Indian	Sick	Children below 15 years.
Beef	grms.	250	200	—	—	
Fish (Fresh) ...	grms.	250	200	200	—	
Bread	grms.	250	125	100	150	
Potatoes	grms.	200	—	—	—	
Rice (1)	grms.	30	400	400	—	
Butter	grms.	20	15	15	—	
Milk	centil.	25	25	25	100	
Vegetables (2) ...	grms.	200	200	200	—	
Salt fish	grms.	—	—	30	—	
Dholl	grms.	—	—	50	—	
Oil	grms.	—	10	10	—	
Fat	grms.	30	10 (or)	—	—	
Tea	grms.	10	8	8	8	
Coffee (raw) ...	grms.	20	20	20	20	
Sugar	grms.	30	30	30	30	
Salt	grms.	10	10	10	—	
Condiment (3) ...	grms.	10	5	5	—	

$\frac{3}{4}$ or $\frac{1}{2}$ or $\frac{1}{4}$ of normal or sick diet, according to apparent age.

Remarks.—(1) Madagascar, Patna or Mooghy rice may be allowed in the European diet.

(2) Vegetables to be made up as follows :

Vegetables ...	...	grms. 170
Potherbs ...	...	20
Pommes d'Amour	...	10

(3) Condiments to consist of Curry Powder, Tamarind, Garlic, Mustard, Allspice, in such combination and proportion as will not exceed the quantity allowed as condiment.

2. The normal diets cannot be allowed any extra free.

3. The Sick Diet may be allowed one to three of the following extras :

Chicken	grms.	250	5 grms. of fat or oil and 5 grms. of salt allowed with any of these six items for cooking.
Fish	,,	200	
Beef	,,	100	
Eggs	p. diem	2	
Vegetables	grms.	200	
Lentils	,,	25	
Milk	centil.	50	
Bread	grms.	100	
Benger's Food		...	Quantity to be prescribed by the Doctor in Charge.
Sago	grms.	60	30 grms. of sugar allowed for the preparation of any of these three items.
Tapioca	,,	60	
Arrowroot	,,	60	
Bovril or essence of beef ...		...	Quantity to be prescribed by the Doctor in charge.
Rice	grms.	200	These items are only to be issued in special cases upon report to the Director for approval.
Potatoes	,,	125	
Butter	,,	10	
Oatmeal	,,	60	
Chocolate	,,	30	

4. In very special cases the number of extras may be increased to five upon immediate report to the Director for approval.

5. Infants who must be fed artificially may be given one of the following :

Cow's Milk	Quantity to be prescribed by the Doctor in charge.
Condensed Milk	
Glaxo	
Farine Lactée	
Mellin's Food	
Benger's Food	
Allenbury's Food...	

6. Extras not mentioned in the above list cannot be given free to any patient.

7. On admission patients will be placed on sick diet pending decision of the Medical Officer in charge. No stimulant such as wine to be given. If in the opinion of the Medical Officer alcoholic stimulant is necessary, it should be ordered as a drug and supplied by the Dispenser.

8. The Medical Officer in charge shall have power to prescribe a special diet whenever he shall be of opinion that such a course is necessary for the proper treatment of any patient by reason of the disease he is suffering from. Such special diet may consist of such articles of food and beverage and in such quantities as shall be fixed by the Medical Officer.

DIET SCALE FOR THE MENTAL HOSPITAL.

Articles		Normal			Sick	Extras (1)
		European	Creole	Indian		
Beef	grams.	225	—	—	—	Fowl : 340 grms.
Bread	,,	450	225	225	225	Eggs.
Butter	,,	30	10	10	30	Bovril.
Fresh Fish (2)	,,	200	200	200	—	Beef : 225 grms.
Milk (3)	centils.	30	10 & 60	10 & 60	100	Rice : 200 grms.
Vegetables (4)	grams	150	150	150	—	Sugar : not to exceed 100 grms.
Dholl, lentils or beans (5)	,,	—	60	60	—	Bread : 225 grms.
Rice (6)	,,	30	400	400	—	Milk : 1 litre.
Potatoes (7)	,,	250	150	150	—	Vegetables : 150 grms.
Salt fish (8)	,,	—	60	60	—	Arrowroot, Tapioca, Sago — 50 grms. each.
Sugar (9)	,,	70	25 & 75	25 & 75	25	
Tea	,,	4	4	4	4	

(1) One or more extras may be added to Sick diet only.
(2) Fresh Fish : 4 days a week.
(3) Milk : 10 centils for tea daily.
50 centils for breakfast 2 days a week, for Creoles and Indians.
(4) Vegetables to consist of potherbs or green brèdes.
(5) Dholl, lentils or beans : 5 days a week.
(6) Madagascar, Patna or Mooghy rice may be allowed in the European diet or as an extra in the Sick diet.
(7) Potatoes : 3 days a week for Indians and 2 days a week for Creoles.
(8) Salt Fish : 5 days a week.
(9) Sugar : 25 grams for tea daily.
50 grams for breakfast, 2 days a week, for Creoles and Indians.

Coffee, raw	,,	20	—	—	—	Coffee, raw : 20 grms.
Tripe (10)	,,	—	150	—	—	Chocolate : 30 grms.
Liver (11)	,,	120	120	—	—	Benger's Food.
Fowl (12)	,,	340	—	—	—	Potatoes : 150 grms.
Salt	,,	10	10	10	10	
Pistachio oil (13)	,,	—	15	15	—	
Lard (14)	,,	30	—	—	—	
Curry powder	,,	3	3	3	—	
Pepper	,,	0.30	0.30	0.30	—	
Flour	,,	0.50	0.50	0.50	—	

(10) Tripe : 2 days a week.
(11) Liver : 1 day a week for Europeans and Creoles.
(12) Fowl : 2 days a week.
(13) Pistachio oil : 5 grams are allowed for 340 grams fowl or 2 eggs.
(14) Lard : 5 grams are allowed for 340 grams fowl, or 2 eggs, or 225 grams beef.

APPENDIX XI

STANDING ORDERS.

Preventive measures to be adopted at Port Louis Prison in respect of Prisoners suffering from Ankylostomiasis, Dysentery and Malaria.

1. Prisoners admitted at Port Louis Prison will be examined for Ankylostomiasis, Dysentery and Malaria.

2. Prisoners suffering from Ankylostomiasis will be treated at Port Louis Prison before transferred to Beau Bassin.

The names of prisoners needing ankylostomiasis treatment will be entered in an Ankylostomiasis Book and such prisoners will be inspected by the Prison Surgeon once a week for the purpose of further treatment if necessary.

3. All prisoners admitted to Port Louis Prison will, prior to transfer to Beau Bassin Prison, be submitted to examination with a view to detecting carriers of dysentery.

For this purpose eight consecutive stools of all prisoners will be inspected by the Prison Surgeon. The Prison Surgeon may direct that suspicious stools be examined microscopically or (and bacteriologically). Should any prisoner be found to be suffering from dysentery he will be treated at Port Louis Prison until he is clinically cured and until three separate examinations of stools have been negative. Cases of dysentery will be isolated from the other patients and the usual precautions as regards communicable diseases will be taken.

Cases of dysentery will be isolated from the other patients and the usual precautions as regards communicable diseases will be taken.

A special "Prevention of dysentery" Book will be kept where the condition of prisoners' stools, normal and abnormal, will be recorded. Prisoners who, after eight consecutive stools have shown no signs of dysentery may be considered free from the disease.

4. Prisoners found to be suffering from active malaria will be treated at Port Louis Prison before transfer to Beau Bassin Prison. A prisoner who has suffered from Malaria should have been free from fever for three consecutive days and have been submitted to appropriate treatment during that time before transfer to Beau Bassin.

Measures taken as regards prevention and treatment of Scabies at Port Louis Prison.

(1) That the old scabies yard " Scaffold Yard " be set aside for the treatment of all convicted prisoners suffering with Scabies.

(2) That 2 Shower Baths be erected.

(3) That a Boiler be erected for the dual purpose of boiling and disinfecting all clothing worn by these prisoners as well as Hammocks, Coverlets etc., utilized by them.

(4) That the large admission Cell at the end of " E " Hall upper floor and 4 single cells, on the left hand side of the corridor be set aside for their accomodation.

(5) That all clothing, bedding, utensils used by them be stored apart from those of all other prisoners.

(6) All unconvicted prisoners suffering from Scabies will be treated in the same manner as convicted prisoners with the exception that their clothing should be retained by them after boiling and disinfecting and that they be kept apart from all other untried prisoners and that they be located in a cell set apart for them on the ground floor of " E " Hall No. 4 Yard.

Treatment will be prescribed for by the Prison Surgeon and it will be the duty of the Warder Compounders to see that every prisoner is properly treated daily.

All prisoners who have undergone treatment for Scabies will be, prior to being removed to ordinary labour, examined by the Prison Surgeon who will certify them free from infection or otherwise.